Appendix-7: Program, Proceedings and Participant List of Workshops/Seminars

Appendix-7.1:	Workshop on 26 October, 2015 (Geophysical Exploration on				
	Embankment)				
Appendix-7.2:	Workshop on 16 November, 2015 (Draft manuals)				
Appendix-7.3:	Workshop on 03 February, 2016 (Pilot Repair Works)				
Appendix-7.4:	Workshop on 02 April, 2016(Pilot Repair Works)				
Appendix-7.5:	Joint Inspection and Workshop on 12 March, 2017 (1st Phase of Final				
	Inspection of Pilot Repair Works)				
Appendix-7.6:	Joint Inspection on 27 April, 2017 (Pilot Repair Works)				
Appendix-7.7:	Joint Inspection and Workshop on 20 May, 2017 (Pilot Repair Works				
	and Final Draft of Construction Manual)				
Appendix-7.8:	Seminar on 13 July, 2017 (Manuals and Action Plan)				

Explanation and Demonstration

On

Geophysical Exploration of Embankment

for

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: October 26, 2015 Time: 15:00 – 16:30

Venue: Training/Library Room, Design Circle, BWDB, Green Road, Dhaka

AGENDA

AGENDA				
14:30 – 15:00	Arrival and Registration			
15:00 – 15:10	Opening Remarks by Director Planning-1			
15:10 – 16:00	Presentation/Demonstration of Geophysical Exploration of Embankment by			
	Mr. Kobayashi			
	Presentation: Applied Methods (10 min)			
	Demonstration: Applied Methods (30 min)			
	2D Resistivity Method, Surface Wave Method			
	Presentation: Field Investigation Result (10min)			
	Comilla & Moulvibazar			
16:00 – 16:20	Q & A (20 min)			
16:20 – 16:30	Closing Remarks:			
	Additional DG Planning			
	Chief Engineer Design/Planning			
16:30 – 17:00	Adjourn and Tea			

Participant List of the Workshop

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

<u>Date: October 26, 2015, Time: 03:00 pm – 04:30 pm</u>

Venue: Training/Library Room, Design Circle, BWDB, Green Road, Dhaka

No	Name	Title/Organization	Phone No Email Address	Signature
1	Rovati Mukherjea	CE/BWDB		
2	Md. Abdul Hye	SE/Director Diof Planning-1 BWDB		
3	KAZI TOFAIL HOSSAIN	SE OESIAN CIRCLES		
4	FAZLUR RASHID	Director/ Stall Dev.		
5	Nalih Sumoia Hussain	AE / Design Cinele -1, BWDB		
6	YASMIN BEGUM	SE, CHIEF ENGINEER DESIGN. BNDB,		
7	Md. Asaduzzaman	E.E. Planning-1 BWDB.		
8	Md. Shahidul Alam	Director Ground Water Hydrology		

No	Name	Title/Organization	Phone No Email Address	Signature
9	Nasima Jahan	Ex En/BWDB	Touche said. By	
10	Shamsad Mahmuda Fatima	Assistant Engr. (BWDB)		Code at part
11	Donin Jahan	Project officer (JICA)		Trivial y
12	ad. Enaget Ullah.	EE/BWDB	remote another my	
13	Nd. Mainul Islam	Sn. Expert-2/ CDMSWR1		
14	Md. Abdul Besit	E.E/BWOB		
15	A. K. Manzun Hasan	SE/BWDB		
16	Md. Hannur Rasheed	SE, Dezign Circli-1 BWDB		
17	Md. Abw Kausar	11		
18	B.M. Nath	SEI Designaindes, BWDB, DLIK.		

No	Name	Title/Organization	Phone No Email Address	Signature
19	MOTAHER HOSSAIN	SE, Dosigneines BWDB		
20	Dr. ANWAR ZAHID	DA, GWH BWDB		
21	Kazumitsu MURAOKA	JICA Expert +6 BWDB	3. 7	
22	Md. Mahfuzur Rahman	Executive Engineer Design Circle-5 BWDB, Dhaka	5	
23	Md. Saif Voblin	XEN, Design-11.		
24	Md. Majadur Rahmar	XEN, Design-IV		X .
25	Md. Shohicluzzheman	SDE, Design-V		
26	Mahid-Al-Haman	AE, Design-I		
27	Md. Arit hossain	AF. Derign-I		
28	AFM Tauhid Jaman	At, Design-1		

No	Name	Title/Organization	Phone No Email Address	Signature
29	md. Abdul Malek	AE, Design-6, BWDB	u lasat satel upukeme	follo Sini da
(16	r to st Novación. 2013 m. P	Ralytes Inlinetryctem: 71	minW -klamatanij wi	
30	Md Maeuuddin	XEN, Propalgan		
	· glavilogear.	B WBB, Cropalson	Arrisolation partici	
31		ly Sub-Divisional & Kashiani of M Sul-Di Sion, BWDB_Gopalga		
32	Hasan Zubaer	Servier total Expert	*2017 The MCA experienced with wilders with the signal on thick will be signal on the second Production Productions.	tiskenskyse tili ortses i viseli ov to tomme API tom a tili
33	Toshmasa Kobayashi	JICA Expert		
34			20010072-150g 2 mg 1	
(E)	Yosuke USUI	abulyanti tooni sassesi Ohoo auli Zoim oi tom	Assist amounted denoted in the management of the property of t	
35	Muntasire Ibn Mohsin	Administrator JICA Expent Team CDMSWRI	comments at a property of the comment of the property of the property of the comment of the comm	II myddinedd 1 - Sesw Tr Cannelsys (d) 2 - Troll 11 -
- 1	ny Tanana and Santana and Sant	of additional designation		
37	/www.colorest.com/mail.com/mai			
38	Contentes comunity of a 1. HE villa to remark the	VIIIVa — ne my		Westmill :

Proceeding of the Workshop on the Project "Capacity Development of Management for Sustainable Water Related Infrastructure" held in the BWDB Conference Room on 16th November, 2015

A half day workshop was held on the activities of the Project "Capacity Development of Management for Sustainable Water Related Infrastructure on 16th November, 2015 in BWDB Conference Room, 3rd Floor, WAPDA Building.

The workshop was conducted in 5 (five) sessions as described below. The Program and Participant list in the workshop areattached in Annexure-1 and Annexure-2, respectively.

Opening Session: In this session Mr. Abdul Latif Miah,ADG (East) in charge of DG,BWDB presided over. With recitation form the holy Quran the session started. Mr. Mahfuzur Rahman, Chief Planning in his opening speech described the purpose of the project and activities so far done. He mentioned that the project has started for more than 2 years ago and it will be continued till September 2017. The JICA expert team have prepared Draft Design Manual for embankment, Draft Construction Manual, andDraft O & M Manual, and tendered for pilot repair work. The contract of which will be signed on 16th November 2015. He also mentioned that the project is JICA and BWDB joint venture Project by which BWDB will be benefitted. The project also will conduct on job training in Japan and Bangladesh. Two batches of trainees from Bangladesh have already been trained in Japan.

Mr. USUI,team leader of the JICA expert team stated about the outline the project activities through power point presentation.

Then Mr. Koichi Kitamura, JICA Representative Bangladesh expressed his views about the project and workshop. He mentioned that he thinks this workshop is a good opportunity to know about what JICA is performing with BWDB in the project. He pointed out that JICA & BWDB are working together for the overall development of the capabilities development of management for sustainable water related infrastructure and this workshop will help in enriching the efforts in the days to come. He expressed satisfaction about the response of BWDB and JICA experts regarding the project.

Then DG (incharge) BWDB in his speech stated that this joint venture project is for Capacity Development of Management for sustainable water related infrastructure though updated Design Manual, preparation of Construction Manual, O & M Manual, and GIS data base, and on job training in Japan & Bangladesh. This workshop will help us a lot in our future development. He expressed gratitude to everybody attending the workshop & he declared the workshop open wishing for its success.

Session 2: Present condition of embankment. It was chaired by Mr. Mahfuzur Rahman, Chief Planning, BWDB. In this session 2 papers were presented by Mr. Harun-ur-Rashid, SE, Design Circle-1, on outline of Embankment work of BWDB & another by Mr. Tatsuya MOCHIZUKI, JICA expert team member on Rough Assessment in Current Status of River Embankment in Bangladesh.

Mr. Harun through power point presentation describe about the types BWDB embankment. Design parameter of BWDB embankment, Failure nature, specification of embankment

2/



Construction and challenges that BWDB face regarding the embankment construction and maintenance. He also mentioned about slope stability analysis, seepage analysis, sheer strength analysis etc.

Chairman of the session thanked Mr. Harun for nice presentation and appreciated some comments from the audience. He gave emphasis on personal communication with the presenter regarding any clarification.

Mr. Mochizuki in his presentation through power point stated about the causes of embankment failure in Bangladesh. He mentioned about 14 investigation sites throughout the country for the assessment of failure. He pointed out that from all the investigation report in his opinionerosion is the main cause of failure of embankment in Bangladesh.

He also spoke about the impact of expansion of erosion at Moulvibazar and embankment condition& analysis in Khulna.

Mr. SajedurRahman, SE/Ganges Barrage Circle, Commented that for Different soil condition embankment design will vary, which should be clarified in Mr. Harun's presentation. He also pointed out that a data bank on soil condition may be created in Design Circle for ready information of soil condition in a area from the facility of speedy design preparation pending investigation at site.

Then Dr. Jiban Kumar Sarker, EE pointed about the d value andhe said that d value will be different for different place as a comment to Mr. Mochizuki's presentation.

Session 3: Preparation of Manuals and pilot project works. This session was presided over by Mr. Jahangir Kabir, Chief Engineer, Design, BWDB. In this session 4 (four) Papers were presented.

1st Paper: Outline/ Basic Consideration of Draft Design Manual for Embankment Presented by Mr. Tatsuya MOCHIZUKI, JICA Expert Team member. Mr. Mochizuki through power point presentation mentioned about Design Consideration, Bearing Capacity, Circular sliding, toe protection, & Design Speciation. Participants wanted to comment. But the Chairman of the session opined that a committee may be formed to review all comments on the Draft Design Manual Circulated to concerned offices and comments may be given to the committee.

ADG, Planning Present in the meeting agreed in this matter.

2nd Paper: Basic Consideration on Draft Construction Manual for Embankment presented by Mr. Koizumi, JICA Expert Team Member.

He spoke on the Density test by Sand replacement method and Safety measures. He alsospoke about the progress charts and field soil test for determination of water content. Chairman of the session told that it will take time to understand the safety measures and review the manual now, so it can be finalized through a committee getting comments afterwards.

3rd Paper: Basic Consideration of Draft O & M Manual for Hydraulic Structure, presented by Mr. USUI, Team Leader, JICA Expert Team.

He spoke about the O & M Guideline, National Work Policy, Nation water Act, SWAT Analysis. He also spoke about the Four pillar of O & M Such as:-

- -Basic Scheme Data
- -Planning O & M
- Budgeting of O & M works
- Monitoring of O & M works

He spoke about the Eight Chapter of O & M Manual. He also requested for comments on Draft O & M Manual.

XEN Amirul Hossain, FFCW Comment on O & M Manual as follows:

- (1) Zonal map should be updated
- (2) Summary should be given
- (3) Peoples participation in CDSP, EIP, CPP may be mentioned
- (4) IPSWAM guideline may be mentioned
- (5) Water Resource Project <1000hd either FCD & FCDI should be clarified
- (6) Central Data Base in BWDB may be established.

Chairman of the session opined that the O&M Manual may also be finalized through a committee.

4th Paper: Outline of Pilot Project Work. The paper was presented by Mr. Nakazawa, JICA expert team member. He spoke about the site of pilot repair works, its present condition & failure pattern, characteristics of the surrounding area, establishment in the pilot repair work area. He mentioned that meeting withthe land owner to allow the pilot repair work and their help in all respect for the work was held. There was FGD atwork site and environmental assessment report has been made and the pilot repair work is environmental friendly. Some little adverse effects can be mitigated by EMMP. The land owners agreed to provide land and other assistance. He spoke that work will start soon and will be completed by mid-May,2016 He gave emphasis on Environmental aspects and it should be taken care of by everybody during the execution of work and during the maintenance period. He also mentioned that the pilot work is for a length of 265m.

4th Session: Report in Training in Japan.

This session was chaired by Chief Engineer Design, BWDB

Mr. Khalequzzaman, Chief Monitoring, BWDB and Ms.Fatema, Assistant Engineer presented their experience of training in Japan from 4th to 17th October, 2015.Mr.Khalequzzaman said that there is difference of all the features like topography, river characteristics, culture etc. in Japan than those in Bangladesh. But the trainees have learnt a lot from this training about advanced engineering. Then Ms. Shamsad Mahmuda Fatima gave brief review of the training such as orientation, lecture attendance, field visits, concluding session, etc. in the presentation. She also showed one video on how to stay during earth quack of 9 magnitude for 30 second.

Also one of the training participants in Japan Mr. Hiruzzaman, Deputy Secretary, MoWR spoke about the nice culture, hospitality, helping attitude, neat and cleanliness and very gentle behavior of Japanese. He mentioned that his ideas and views about life have changed a lot after this training. Chairman of the session concluded the session thanking all participants.

\$

5th Session: Concluding Session

In this session ADG(Planning),BWDB delivered his concluding speech. He mentioned that he is very happy for remaining present in the workshop. He appreciated the actions and interaction of the workshop. He hoped that this workshop will help the JICA experts and BWDB to achieve the outputs of the project. He also mentioned that committees will be formed soon and it will act to finalize the issues as mentioned in the proceeding. Finally he wished good health and peace of everybody.

At the end Mr. Abdul Hye, DirectorPlanning-1 thanked all participants for attending the workshop and their patient hearing and comments.

The workshop thus ended following a Lunch.

(Md. Mahfuzur Rahman) Chief Planning

BWDB, Dhaka.

Date: 23.11.2015.

Memo No. BWDB/P-1/ 735 (40)

Distribution: (Not as per seniority)

- 1. Additional Director General (Planning), BWDB, Dhaka.
- 2. Additional Director General (Eastern Region), BWDB, Dhaka .
- 3. Additional Director General (Western Region), BWDB, Dhaka.
- 4. Chief Planning, BWDB, Dhaka.
- 5. Chief Monitoring, BWDB, Dhaka.
- 6. Chief Engineer, Hydrology, BWDB, Dhaka.
- 7. Chief Engineer, Design, BWDB, Dhaka.
- 8. Chief Engineer, North-Eastern Zone, BWDB, Sylhet.
- 9. Chief Engineer, Northern Zone, BWDB, Rangpur.
- 10. Chief Engineer, North-Western Zone, BWDB, Rajshahi.
- 11. Chief Engineer, Southern Zone, BWDB, Barishal.
- 12. Chief Engineer, South-Western Zone, BWDB, Khulna.
- 13. Chief Engineer, Western Zone, BWDB, Faridpur.
- 14. Chief Engineer, South-Eastern Zone, BWDB, Chittagong.
- 15. Chief Engineer, Central Zone, BWDB, Dhaka.
- 16. Chief Engineer, Eastern Zone, BWDB, Comilla.
- 17. Chief Engineer, O & M, BWDB, Dhaka.
- 18. Chief, Training & Staff Development, BWDB, Dhaka.
- 19. Mrs. Hamida Chowdhury, Deputy Secretary, MoWR, Dhaka.
- 20. Mr. Muhammad Hiruzzaman, Deputy Secretary, MoWR, Dhaka.
- 21. Director, Planning-1 Directorate, BWDB, Dhaka.

- 22. Director, Planning-2 Directorate, BWDB, Dhaka.
- 23. Director, Planning-3 Directorate, BWDB, Dhaka.
- 24. Superintending Engineer, Design Circle-1, BWDB, Dhaka.
- 25. Superintending Engineer, Design Circle -2, BWDB, Dhaka.
- 26. Superintending Engineer, Design Circle -4, BWDB, Dhaka.
- 27. Superintending Engineer, Design Circle -5, BWDB, Dhaka.
- 28. Superintending Engineer, Design Circle -6, BWDB, Dhaka.
- 29. Superintending Engineer, Surface Water Hydrology Circle, BWDB, Dhaka.
- 30. Superintending Engineer, Moulovibazar O&M Circle, BWDB, Moulovibazar.
- 31. Director, Programme, BWDB, Dhaka.
- 32. Director, Contract & Procurement Cell, BWDB, Dhaka.
- 33. CSO to Director General, BWDB, Dhaka.
- 34. Director, Processing, BWDB, Dhaka.
- 35. Executive Engineer, Moulvibazar O&M Division, BWDB, Moulvibazar.
- 36. Mr. Shamal Chandra Das, Executive Engineer, Office of the Chief Planning, BWDB, Dhaka.
- 37. Executive Engineer, Flood Forecasting & Warning Centre, BWDB, Dhaka.
- 38. Executive Engineer, Planning-1 Directorate, BWDB, Dhaka.

Director

Directorate of Planning-1, BWDB, Dhaka.

Annexture-1

Workshop

on

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: November 16, 2015 Time: 09:30 – 14:00

Venue: Conference Room, the 3rd Floor, WAPDA Building, Motijheel, BWDB

AGENDA

09:00 – 09:30 Arrival and Registration 09:30 – 10:00 Opening Session	
IUP III IIP III I I Inoning Section	
Chair: DG, BWDB	
Recitation from the Holy Quran- Mr. Omar Faruque	
Opening Remarks by Chief Planning, BWDB	
Outline of Project Activities by JICA Expert Team	
Remarks by JICA Bangladesh Office	
Remarks by ADG Planning, BWDB	
Remarks by DG, BWDB	
10:00 – 10:15 Tea/Coffee Break	
10:15 – 11:00 Session 2: Present Condition of Embankment	
Chair: Chief Planning, BWDB	
Outline of Embankment Works of BWDB	
Speaker: Mr. Harunur Rashid, SE, Design-1 (15 min)	
Rough assessment on Current Status of River Embankment in Banglad	
Speaker: Tatsuya MOCHIZUKI, JICA Expert Team (15 min)	
Discussion (10 min)	
Remarks by Chairman of Session 2 (5 min)	
11:00 – 12:15 Session 3: Preparation of Manuals and Pilot Project Work	
Chair: Chief Engineer, Design	
Outline/Basic Consideration on Draft Design Manual for Embankment	
Speaker: Tatsuya MOCHIZUKI, JICA Expert Team (15 min)	
Outline/Basic Consideration on Draft Construction Manual for Emban	kment
Speaker: Johji KOIZUMI, JICA Expert Team (15 min)	
Outline/Basic Consideration on Draft O&M Manual for Hydraulic Stru	ictures
Speaker: Yosuke USUI, JICA Expert Team (15 min)	
Outline of Pilot Project Work:	
Speaker: Mr. Osamu NAKAZAWA, JICA Expert Team (10 m	nin)
Discussion (15 min)	
Remarks by Chairman of Session 4 (5 min)	
12:15 – 13:00 Session 4: Report on Training in Japan	
Chair: Chief Engineer, Design, BWDB	
Report on Training in Japan	
Speaker: Mr. Khondaker Khalequzzaman, Chief Monitoring	(25 min)
Discussion (15 min)	,
Remarks by (Chairman of Session 3 (5 min)	
13:00 – 13:15 Session 5: Closing Session	
Closing Remarks by ADG (Planning), BWDB	
Thanks Giving by Director, Planning-1	
13:15 – 14:00 Adjourn and Lunch	

Participant List of the Workshop

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: November 16, 2015,

Time: 09:30 pm - 14:00 pm

Venue: Conference Room, 3rd Floor, WAPDA Building, BWDB

No	Name Name	Title/Organization	Phone No	Signatu
1	Md. Mahfrzur Rahman	Chief planning BWDB	Email Address	
2	Abul Kalam Azad	Chief Engineer Central Zone	nice a second se	
	Md. Abdus Rahman	BNOB. Chief Training	Fire discount	
3	Alkhanda	BWDD Doutes	url .	
4	Md. Moraldegue Horce	Easter Zone, Bul Dr. Comilla.		
5	Md. Masud Alimed	ADG (Planning) BWDB		
6 .	S.M. Shahidul Hogh	CSO to the DG.		
7	Md. Jahangin Kabin	Chief Engineen Design		
3	Saceda Nazreen	chief Erginer 04 M		

No	Name	Title/Organization	Phone No Email Address	Signature
9	Mohammad Ali	Director OSM BWDB.		
10	K. M. Anwar Hossain	Addl. Chief Engr. South-west zone BWDB, Khulna	7	
11.	BRAZA MONTAGON NATH	BE, Design Circle 5, BNOR, DLAN		
12	Sujoy Chakma	Director Planning-III BINDB. Dhake	No.	
13	HAMIDA CHOWDHURY	DEPUTY SECRETARY M/O WATER RESOURCES.		
14	Poly Das	Assistant Engineer. Design Circle-2 Books, Dhaka	and the second	
15	Nasima Jahan	E.E. Design Cirole BWBB	2	
16	Md. Abul Kausar	SE/Design eixele-L		
13	7 Dr. Jilban Kumar Sarker	Y EE/Design Circle-4		
1	8 Md. Shatijaham Si'raj	EE/Tangail 02M		

No	Name	Title/Organization	Phone No Email Address	Signature
19	Md. Mahfuzur Rahman	Executive Engineer Design Circle-5 BWDB, Dhake	Billian Address	101
20	SALEH AHMED	Executive Engineer BLO 13		
21	Dherendra NaTh Sarker	S. E. Moulvilasar or March. Powno, Moulvilasar.		
22		Enecutive Engineer (Add.) Moulvibazar O + M Div. BUODB. Marelvibazar.	(d.)	
23	Md. Mainul Islam	Deputy Project Manager for Capacity Development of Management for Sustain		
24	Nasa Kuman Chondhuru	Executiva Engineer Jamalpur 04/m Din BNDB, Jamalpur		
5	Provate Mukberje	Chief Ergineer, Hydrology, BNDB, Dhaka.		
6	Motahen Hussain	SE. Design under BUDB.		
7		EFWC, BWDB		
8 2	ull . Marriott III	Director Entacts Roeuremot Cell BWOB, alaka		

No	Name	Title/Organization	Phone No Email Address	Signature
29	Md. Kamalur Rahm Talukder	Add Chief Engineer BADB		
30	Dr. Shamal chandra Das,	Executive Engr. office of the chief Planning, BWDB		
31	Nonin Jahan	Project offices JICA, BNDB	ng y Milatan mga Aliatan	
32	Md. Enayet Ullaka	Exemple Enginer. Planning - 1 BNDB,	to Co. Investigation	
33	FAZLUR RASHID	DIRECTOR STAFF DEV. BWDB	silv.	
34	A. K. MANZUR HASAN	Superintending Engineer. SWHE, BWDB.		Le A
35	Md. Sajidur Rahma Sarder	Superintending Engineer Ganges Barrage Study Preject		
36	Md. Kudsat Ali ACE/ Project Director Sosai Rivos Restoschian	Project (2nd PL)	No.	
37	A.K. M. Shofique Hope	Superintending Emps Director Process Section, eve BNDB	12 11113	
38	Md. Asaduzzawan	E.E. Planning-1 BWDB.		

No	Name	Title/Organization	Phone No Email Address	Signature
39	Md. Mahbur Rahman	Dikuefor programe.	Email Address	3 21
40	Muhammad Hiruzzam	Ministry of Water Kesausan		
41	Johji KOIZUMI	a Member of OTCA Expert Team		
42	Osamu NAKAZAWA	JICA Expert Environment & Social Considerations		
13	Tatsuya Mochizuki	TICA Expent.		
14	Nd. Harvn Ur Rashed	Engineer Engineer Design circle-1 BNDB.		
		Chief Enginer Northern Zone BWBB, Rangpur		
5	Kh, Khaleguzzamen	Chief Monitoring BWDB.		
7	Md. About Hire	Director (SE) BWDB		
3		IICA local servier expert		

No	Name	Title/Organization	Phone No Email Address	Signature
19	Koichi Kitamura	JICA		
50	Mohammad Shahabudda	Add. Chif Engs/- Project Director. IMIP, MIP, BWDB. DANKE.		
51	AKhil Kumar Prisives	Superintending Ensi Fini DBN Grela Besth, Fini		
52	Md. Mossarraf Hossei	Chief Engineer Southern Zone PSWDB, Bosisal		
53	Md. Sumon Minh	Assistant Engineer planning-1 BWDB		
54	nd. Ragib Hossain	Assistant Engineer Planning-1 BWDB		
55	Sharmad Mahmuda Fatirna.	Assistant Egg. planning -1 BWDB		
56	Md. Fahad Hasan	Assistant Engineer Processing Section BWDB Dhaka		
51	M. Abdun Rakib	Assistant Engineer Office of the chief Planning, BNDB, DIAKA	·	
5	8 Ashutish Barman	Assisfant Engineer office to the chief Planning, BWDB, Dhot		

No	Name	Title/Organization	Phone No Email Address	Signature
59	Project Director HFM& LIP, BWAB	BWDB	Small reduces	
60	ML Moninerzzamon Precubive Enginer DWDB, Halbridgen	GWD6		
61	Md. Rajos Khan ADE, BWDB, Joypwihat,	BWDB		
62	Yosuke USUI	JICA Expert Team/ Team Leader		
63	Muntasire Ibn Mohsin	Administrator JICA Study Team PCDMSWRI		
64				
65		,		
66				
57				
58				

Workshop in Field No. 1

on

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: January 23, 2016 Time: 09:00 – 14:00

Venue: Pilot Repair Work Site, &

Conference Room, Hotel Rest Inn, Moulvibazar

AGENDA

08:00 - 08:20	Arrival and Registration at Moulvibazar O&M Division Office, BWDB			
	(Participants from Dhaka move from Hotel Rest Inn to BWDB Office)			
08:20 - 09:00	Move to Pilot Repair Work Site (all participants)			
09:00 - 09:30	Session 1 in Field			
	Safety Gathering in Pilot Repair Work Site			
09:30 - 10:30	Session 2 in Field			
	Joint Site Inspection (Especially for sand-cement gunny bag works)			
10:30 - 11:00	Move from the site to Hotel Rest Inn (All participants)			
11:00 - 11:30	Tea/Coffee Break			
11:30 - 13:00	Session 3: Safety Management & Foot Protection Works of Pilot Repair Works			
	Chair: ADG Planning, BWDB			
	Opening Remarks by Chief Planning, BWDB			
	Safety Management in Japan (10min)			
	Speaker: Mr. Kazumitsu MURAOKA, JICA Expert to BWDB			
	Report on Trial Fabrication of Sand-Cement Gunny Bag (15min)			
	Speaker: Mr. Md. Mainul Islam, Deputy Engineer in Charge of the Works,			
	JICA Expert Team			
	Construction of Foot Protection Works by Sand-Cement Gunny Bags (15 min)			
	Speaker: Mr. Abdul Kader, Sectional Officer, Moulvibazar O&M Division			
	Questions & Answers, Discussion (40 min)			
	Closing Remarks by Chairman			
13:00 - 14:00	Adjourn and Lunch			

^{* 14:30} Participants from Dhaka will start from Hotel Rest Inn to Dhaka.

Proceeding of the workshop on activities of Pilot Repair Work in the Manu River Embankment, Moulvibazar under the Project "Capacity Development of Management for Sustainable Water Related Infrastructure" held on 23 January 2016 at site & in the Conference Room of Hotel Rest Inn, Moulvibazar

A half day workshop on the activities of Pilot Repair Work on the right embankment/along the Manu river of Manu River Project at Noarai, Akhailkura Union, Moulvibazar Sadar Upazilla was held on 23 January, 2016.

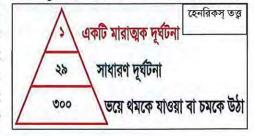
The workshop had 3 session, 2 (two) at the working site at Noarai, Akhailkura Union, and the 3rd one of Workshop in the Hotel Rest Inn Conference Room of the Moulvibazar City. The 1st two sessions was administrated by Mr. Johji Koizumi, Project Manager at the Repair/Construction site at the field and the 3rd session was chaired by the Additional Director General (Planning), BWDB in Rest Inn hotel.

The participants list are attached in Annex-A

The First session in the field start at 09:15, Before that all participants gathered in BWDB, Moulvibazar Office for preparation and wear safety helmet with logos of BWDB & JICA and start for the site.

In the site all the labor and participants including the JICA officials and JET Consultant stand on line and Mr. Koizumi discussed the Safety Law (Heinrich's Law) and the safety Slogan "Safety First" "সবার আগে নিরাপত্তা" (Sobar Age Nirapotta) was enchanted by everybody. It was discussed that, as per Heinrich's Law, that in a workplace, for every accident that causes a major injury, there are 29 accidents that cause minor injuries and 300 accidents that cause no injuries. Because many accidents share common root causes, addressing more commonplace accidents that cause no

injuries can prevent accidents that cause injuries. In other words after 300 incidents of ordinary incidents or awful events, one ordinary Accident may Happen and after 29 number of ordinary Accident, one serous Accident may happen that caus major injury even death cases with major loss of Properties Machineries and assets.



Then the 2nd session of inspection of the Pilot work started. The participants inspected manufacturing of Sand-Cement gunny bag and CC block. Chief Engineer, North Eastern Zone, BWDB /Sylhet and Superintending Engineer/Moulvibazar O&M Circle pointed about the cutting of shoal in Manu River just opposite to the pilot site. Director Design-1 measured the dimensions of the sand cement gunny bag and enquired about the volume of each sand-cement gunny bag.

Am

Then the participants came back in the Hotel Rest Inn and the 3rd Session on presentation of paper & discussion started.

The 3rd session of Workshop started with Recitation of Holy Quran. Then all participants introduced themselves. With the permission of the Chair, Mr. Mahfuzur/Rahman, Chief Planning delivered his inaugural speech.

Mr. Mahfuz told that this Capacity Development Project & the Pilot Repair Work is a Joint Venture by BWDB & JICA. If the lesson learnt from this pilot repair works can be disseminated to other BWDB works then it will be helpful in future. He said that he liked the safety demonstration in the field very much as this type of thing is a new in BWDB .He also expressed satisfaction about the quality of C.C blocks and sand cement gunny bags.

He also said that the vehicle driver & machinery drivers should also be very careful about the safety measures. He said that plan design, execution, workshop etc. all are beneficial to BWDB.

Then Mr. Muraoka, JICA expert to BWDB delivered his speech on Safety measures adopted in Japan during construction. He said that he joined in BWDB since September, 2014. He has visited almost all over Bangladesh. Before coming to Bangladesh he worked in Japanese Ministry of Land Infrastructure Transport & Tourism. He has some experience in construction work. In all construction site safety issue is of utmost importance.

Through power point presentation he showed the symbol of safety measures which are demonstrated in the construction site. He also described about the importance of safety and industrial safety and health Act of Japan since Nov1946. In slide he showed the daily safety measure activities in Japan & also the weekly & Monthly safety measure activities.

He also mentioned that in the 1900th century US steel in USA had the slogan **Production First, Quality Second, and Safety Third**. But that did not worked good. Then US steel President Mr. Gray changed company's polity as:

m

SAFETY FIRST QUALITY SECOND PRODUCTION THIRD

He also showed the Typical Japanese Safety Placard

ANZEN-DAI-ICHI

Which means Safety first

Then Mr. Mainul Islam, Deputy Project Manager of Pilot Repair Works presented his paper in "Trial Fabrication for Sand-Cement Gunny Bag" through power point presentation.

He spoke about objective of Sand-Cement Gunny Bag Fabrication, Inspection of Sand-Cement Gunny Bag & out come from the trial result.

Objective of Sand-Cement Gunny Bag is shaping the foundation of embankment & toe wall. In the field 99 of Sand-Cement Gunny Bag was fabricated with different proportion and sand type. Inspection of sand cement gunny bag was carried out after 7 days curing, 14 days curing & 3-5 days curing for work ability and hardening by (1) measuring unit weight (2) dropping test (3) scratch surface and other observation. After all observation it was decided that Send Cement preparation is 8:1 & FM of sand=1.50 (preferably Sreemongal sand) & 220 Kg. of Water p/m^3 will be used. i.e., 24.5 kg of water for 25 Kg Cement & 200 Kg of sand will be used for one small batch of Sand Cement Mortar.

Then Mr Abdul Quder, S.O/BWDB delivered his paper on construction of Sand Cement Gunny bag. He pointed the following:

- 1. Fabrication
- 2. Curing and stock pile.
- 3.Dumping.
- 4. Setting up shape and measurement.
- 5.Difficulties such as
 - a. Water Level rise and drop of Manu River
 - b. Delivery of bags
 - c. Hike of Market Price of Gunny bags.
 - d. Checking shape of Sand Cement gunny bag mound under water.

He also spoke about the extension of Geo-textile sheet in the foundation from toe wall

m

to the bottom of foundation sand cement mound's top peripheral surface. Also he showed a graphical progress of the sand cement gunny bag construction and dumping.

Then the floor was opened for discussion and comments by the participants.

Mr. Mahfuzur Rahman, Chief, Planning pointed out that price hike is not a problem. Also the rise of water land in Manu River can be known from the BWDB and it is not a serious problem. He also expressed his satisfaction about the size & shape of the CC block at site.

Mr. Harun, Superintending Engineer, Design-1 said that survey under water may not be a problem. He also pointed out that the mixer machine operator should be well trained about the water cement ratio. He also suggested that safety measure motivation procedure and activities should be included in the construction manual. The safety measure issue may also be disseminated in the broad review meeting. He also suggested that here sand cement bag has been fabricated in 8:1 proportion with sand of FM=1.49. But for experiment 100 nos. Sand Cement Gunny bag may be fabricated with 10:1 proportion & Sand of FM=1 and see the outcome. Mr. Harun, SE also told that Geotextile filter may be extended if necessary.

Mr. Amirul Hossain, Director Planning-1, BWDB thanked Mr. Johji Koizumi for the Safety Drill. He pointed out that Japan is a trusted friend of Bangladesh. He also said that Japanese never compromise with the quality of work so he thinks that high quality workmanship are being maintained& will be maintained in the pilot repair works.

Chief Engineer, North Eastern Zone, BWDB, Sylhet thanked JICA & JICA expert for such a workshop & safety drill in the field. He suggested that in future some other contractor representative from other areas of BWDB should be invited in such workshop so that they can be aware of safety activities and procedures followed in the pilot work.

Mr. Dhiren, SE, Moulvibazar pointed out that trial may be made to increase the volume of the sand cement gunny bag so that it covers some more area and no of sand cement gunny bag is reduced. He also suggested that the work may be extended 50m more along the side of the grave yard.

Then Mr. Md. Masud Ahmed, ADG Planning and chairman of the session in his speech praised about the activities of JICA expert team. He suggested that care should be taken for proper curing. He expressed his satisfaction about the shape and size of the blocks. He also told that initiative of JICA is very helpful in respect of safety procedure and capacity development of BWDB. He thanked Mr. Ara & other JICA experts heartily.

Then the workshop ended with thanks to everybody by the Chair of the Workshop and lunch.

(Md. Masud Ahmed, PEng.) Addl. Director General (Planning) BWDB, Dhaka.

4

Memo No.:-907, Dt. 2701, 2016

Distribution: (Not as per seniority)

- 1. Additional Director General (Planning), BWDB, Dhaka.
- 2. Chief Engineer, Design, BWDB, 72, Green Road, Dhaka.
- 3. Chief Planning, BWDB, Dhaka.
- 4. Chief Engineer, North-Eastern Zone, BWDB, Sylhet.
- 5. Superintending Engineer, Moulvibazar O & M Circle, BWDB, Moulvibazar.
- 6. Superintending Engineer, Sylhet O & M Circle, BWDB, Sylhet.
- 7. Superintending Engineer, Design Circle-1, BWDB, 72, Green Road, Dhaka.
- 8. Superintending Engineer, Design Circle-6, BWDB, 72, Green Road, Dhaka.
- 9. Director, Directorate of Planning-1, BWDB, Dhaka.
- 10. Executive Engineer, Office of the Chief Planning, BWDB, Dhaka.
- 11. Executive Engineer, Directorate of Planning-1, BWDB, Dhaka.
- 12. Executive Engineer, Design Circle-1, BWDB, 72, Green Road, Dhaka.
- 13. Executive Engineer, Moulvibazar O & M Division, BWDB, Moulvibazar.
- 14. Executive Engineer, Sylhet O & M Division, BWDB, Sylhet.
- 15. Executive Engineer, Habiganj O & M Division, BWDB, Habiganj.
- 16. Executive Engineer, Kishoregonje O & M Division, BWDB, Kishoregonje.
- 17.-20. 04 (Four) Sectional Officers, Moulvibazar O & M Division, BWDB, Moulvibazar.
- 21. Sub-Divisional Engineer, Sylhet O & M Division, BWDB, Sylhet.
- 22. 01 (One) Sectional Officer, Sylhet O & M Division, BWDB, Sylhet.
- 23. Sub-Divisional Engineer, Habiganj O & M Division, BWDB, Habiganj.
- 24. 01 (One) Sectional Officers, Habiganj O & M Division, BWDB, Habiganj.

C.C.

- 1. C.S.O to Director General, BWDB, Dhaka.
- 2. PA to Additional Director General (Planning), BWDB, Dhaka
- 3. Yosuke USUI, Deputy Team Leader, JICA Expert Team, The Project for Capacity Development of Management for Sustainable Water Related Infrastructure.
- 4. Office Copy

Md. Amirul Hossain

Director

Planning-1, BWDB, Dhaka

Participant List

for

The Workshop on the Activities of Pilot Repair Works of Manu River Right Embankment

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: January 23, 2016,

Time: 08:30 pm - 14:00 pm

Venue: Conference Room, 2nd Floor, Rest Inn Hotel, Moulvibazar

No	Name	Title/Organization	Phone No Email Address	Signature
1	Md. Masud Ahme	ADG (Manu's) BNDR		
2	Md. Mahfuzur Rahman	Chief planning, BWDB		
3	Hasan Zubair	JICA Servier Expert		
4	Naoki Matsumura	Country Programme Coordinator (Discoster Management), JICA/Hop	ИK	
5	Md. Harun ur Rasheed	Superintending Enginer. Design Circli-1 BWDB		
6	Anisuzzaman Chowdhusy	Deputy Assogram Manager JICA		
7	Muhammad Musoud	Executive Ergr. Design circle-1 BWDB		1
8	AFM Taulid Jaman	Asst. Engr. Design circle -1 BWDB		

No	Name	Title/Organization	Phone No Email Address	Signature
9	Md. Apdul Hye	Adl. Chief Engineer BWDB, Sylhel-		1 1 1
10	Llitoshi ARA	JICA BD Office		
11	Dhèrendra Nath Sarker.	BWDB,/S.E. Moulvibezax.		
12	M L Shaikat	Sub-Divisional Frogo Holsigans 0 8M Sub- Division-11 BNDB Holsiganj		
13	Md, Abdul Mannan	Sub-Assistant Erg. Ballah O-RM Section BWDB, Habigan.		
14	Sabyasachi chowdhung	BUDB Haleigarrj.		
15	Md. Ragib Hossain	Assitent Engineer Directorate of Planning J. BWDB, Dhaka		
16	Md. Giolam Bari	Sub-Assistant Engineer Sylhet OSH Division BWDB, Sylhet		
17	nd Afrigul Islam	SW- Assistant- Engineer BWDB Mouls Sazor		
18	MD Bashir UDDin	Seeb-Assistant Enegineer, BWDB, Houlnibalter	¥	

No	Name	Title/Organization	Phone No Email Address	Signature
19	Md. Aminul Hanaja	Planning-1 BWDB		
20	Me. Enayet Ullah. Executive Engineer.	Planning-1 BNDB		
21	Md. Siragni Islam Executive Engines	Sylher ORM Division BWDB		
22	Md. Shamson Hague Brewtine Engineer	Moulvibatore Mechanical Division		
23	Mol. Tawhidul Jelan Sub-Divisional Engineer	Syllut OfM Sub- Division - 3 BNOB, Syllut	ba w	
24	Md. Faizer Rob Executive Engineer (Add at Moulvibazar O+M Div.	Maulvibazar 0 + M Div. ZWDB. Maulvibazar.		
25	Md. Abdul Mannow SAE/C.U Mouly lbgzay OSM Divistou.	Moduiogar OPM ON 18 NAS Moduiogar		
26	Mo, Abdul Kaderz Sectional Officera Moulvibation 08 M DIVISION	Moulvibazar oam Division, GWDB		
27	JOHJI KOIEVMI	Project Manager, Pilot Repair Works X a memeher of JET		
28	Kazumitsu	JICA Expent		
	MURAOKA	TO BWDB		

No	Name	Title/Organization	Phone No Email Address	Signature
29	Md. teamnul Hasan	Creative Media L+d.		
30	MD. RASEL	u,		
31	Solei marh horson	1)		
32	NURULISIM	11		
33	Md. Mainul Islam	Deputy Project Manager, JET PRW, BWDB.		
34	Yosuke Usui	Team Leader Project CDMSWM,S JICA Expert Team		
35	Muntasir Ibn Mohsin	Administrator Project For CDMSWRS JICA Expert Team		
36				
37				
38				

Workshop in Field No. 2

on

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: April 02, 2016 Time: 09:00 – 14:00

Venue: Pilot Repair Works Site, &

Conference Room, Hotel Kairan, Julia Shopping City (2nd Floor), 111 M. Saifur

Rahman Road (Chowmuhona), Moulvibazar

AGENDA

08:00 – 08:20 Arrival and Registration at Moulvibazar O&M Division Office, BWDB	
(D, C, C, D)	
(Participants from Dhaka move from Hotel Rest Inn to BWDB Office)	
08:20 – 09:00 Move to Pilot Repair Works Site (all participants)	
09:00 – 10:30 Session in Field	
1. Morning Gathering for workers & engineers of T.S.S.	
(Simple address by the Project Manager of T.S.S., "Safety First" Call by	all)
2. Joint Site Inspection	
Fabrication of CC Block with projection	
Earth works (compaction method, demonstration of checking of densit	
field: by the staffs of Moulvibazar O&M Division Office, BWDB, others)
Foot and slope protection works,	
Compensation works, etc.	
10:30 – 11:00 Move from the site to Hotel Kairan (All participants)	
11:00 – 11:30 Tea/Coffee Break	
11:30 – 13:00 Session in Conference Room:	
Quality Control (QC) for Embankment in Pilot Repair Works	
Chair: ADG Planning, BWDB	
Opening Remarks by Chief Planning, BWDB	
1. River Embankment Works in Japan (15mins)	
Speaker: Mr. Kazumitsu Muraoka, JICA Expert to BWDB	1
2. Report of Trial Compaction and QC for Embankment (trial compaction	and
daily QC with checking field density for embankment, etc.) (15mins)	ш
Speaker: Mr. Abdul Kader, Sectional Officer, Rajnagar O&M Section Moulvibazar O&M Division, BWDB	11,
3. Preparation of Works and Others (soil test for selection of embanking)	ont
material, trial fabrication of CC block with projection, etc.) (15mins)	CIII
Speaker: Mr. Md. Mainul Islam, Deputy Engineer in Charge of the Wo	rke
JICA Expert Team	ıks,
JICA LAPOR ICAM	
Questions & Answers, Discussion (45mins)	
Closing Remarks by Chairman	
Closing Remarks by Chairman 13:00 – 14:00 Adjourn and Lunch	

Proceeding of the workshop No. 2 on activities of Pilot Repair Work in the Manu River Embankment, Moulvibazar under the Project "Capacity Development of Management for Sustainable Water Related Infrastructure" held on 2nd April 2016 at the working site as well as at the conference room of Hotel R. S. Kairan, Moulvibazar.

A half day workshop on the activities of Pilot Repair Work along the Manu right embankment under Manu River Project at Noarai, Akhailkura Union, Moulvibazar Sadar Upazilla was held on 2nd April 2016.

The workshop had 3 session, 2 (two) at the working site and the 3rd one at the Hotel R. S. Kairan conference room located at the Moulvibazar district town. The 1st two session held at the field was administrated by Mr. Jojhi Koizumi, Project Manager of the Repair/Construction site and the 3rd session at the hotel conference room was chaired by Chief Planning, BWDB, Dhaka.

The list of participants is attached in Annexure-A

Before the outset of the first session in the field at 9.30, all participants gathered at the Moulvibazar BWDB office premium for necessary preparation.

In the site all the workers and participants including the JICA officials and JET Consultant stood on line putting safety helmet on. Representative of TSS JV (the Contractor) and Mr. Mainul Islam, DPM discussed about the safety at working site and the safety Slogan "Safety First" "সবার আগে নিরাপত্তা" (Sobar Age Nirapotta) was enchanted by a labor leader & everybody. It was revealed that for Gods Mercy & following the safety rules strictly there was no accident happened so far in the working site.

Then the 2nd session- Inspection of the Pilot work started. The participants observed the compaction activity by bulldozer. Practical demonstration of field density test and Degree of compaction test was done in the worksite and result found quite satisfactory.

The Chief Engineer, North Eastern Zone & Others inspected the toe wall construction & Geo-textile placement as well as laying. Superintending Engineer, Design-1 (SE-1) & others inspected the casting of projected blocks. SE-1 also inspected the sand cement gunny bag (100 no. samples) prepared as per the proportion of 10:1 with ordinary local sand as a test case for the future use in the Projects by BWDB prepared as per decision of the 1st workshop.

After completing the field visit, the participants then came back in the Hotel R. S. Kairan and the 3rd Session-Presentation of papers & discussion started at the hotel conference room.

The 3rd session started with recitation from the Holy Quran. Then all participants introduced themselves. With the permission form Mr. Kh. Khaluquzzaman, Chairman of the session Mr. Amirul Hossain, Director, Planning-III & previous Director of Planning-I delivered the introductory speech.

Mr. Amirul told that this Capacity Development Project & the Pilot Repair Work is a Joint Venture by BWDB & JICA. Last January, the first workshop was held and as a follow-up & to know about the present activities of the Project, this 2nd workshop has been organized. This project will continue up to June 2017. If the lesson learnt from this pilot repair works can be disseminated to other BWDB works then it will be helpful in future for BWDB.

Then Mr. Kazumitsu Muraoka, JICA expert to BWDB delivered his speech as to the construction work of River Embankment in Japan. First he said that

REMEMBER!

In 1900th, US Steel in USA. The company policy was:
Production First, Quality Second, Safety Third
Then, US Steel President Mr. Gary Changed Company's policy
Safety First, Quality Second and Production Third

Through power point presentation he narrated that there has been the standard ToR for civil construction works in Japan and all civil works should comply with this ToR. Also additional ToR should be added for each construction works.

To develop beautiful, strong and long-life infrastructure, he said that three aspects shall have to be given importance. Those are:

- (i) Good designing
- (ii) Well-planned and controlled construction
- (iii) Strong supervision

If any one of these is lacking, it will not be a good infrastructure. Also sustainable maintenance work will be needed. After making a contract, the contractor makes the construction plan incorporating the following items:

(1) Construction outline, (2) Organization chart on construction site, (3) Machine usage list, (4) Main machine, (5) Materials list, (6) Method of works, (7) Supervision plan, (8) Safety management, (9) Management plan for emergency, (10) Traffic management, (11) Environmental countermeasure, (12) Improvement of environment on construction site, (13) Recycle, re-use and disposal plan & (14) Others

Govt. Officials check the plan and approve it. Then the contractor starts the construction in accordance with the construction plan.

Embankment materials for embankment construction are carried by Dump Truck which is inspected by Govt. Officials and no overloading is allowed. Even if there is overloading, penalty is imposed. Proper compaction is done by pay loader or other suitable equipment and field density is tested by R/I (Radio Isotope) equipment.

He showed some of the photos of embankment works in Japan. He also mentioned that there is ruler gauge to measure the compacted height of the embankment and profile mark for the section of the embankment in Japan. He also said that, the contractor should finally submit all the documents and photos of construction work to supervisor. And also the contractor should make the record of construction and submit to supervisor. He said that in Japan, Supervisor is Govt. Official not the consultant. Supervisor assess the design value, then contractor's value after work and then compare with the supervisor's value.

After Mr. Muraoka, Mr. Abdul Kader, S.O, BWDB presented his paper on Trial Compaction & QC for embankment. He spoke through power point presentation in respect of trial compaction and steps followed for trial compaction-

Step-1: Use of planning compaction

Step-2: Manual compaction by hammer

Step-3: Use of Bulldozer

He also spoke about the daily quality control for compaction in constructing the embankment. He described all the steps in detail and finally spoke about the findings recommendation, e.g., in case of use of bulldozer for spreading & compaction of material layer by layer, number of passes of compaction of 2 times is enough. Thickness of spreading material shall be not more than 25cm. He finally showed the sectional position of working and testing each day.

Then Mr. Md. Mainul Islam, Deputy Project Manager of Pilot Repair works presented his paper on preparation work & other works. He spoke about

- (1) Soil test for selection of embankment material
- (2) Trial for fabrication of C.C. block 40*40*20 cm with projected part

 He stated that trial fabrication for 1:2:4 & 1:3:6 proportion done in this case for the view point of workability and shaping, no difference was found.

He also spoke about manufacturing & dumping of C.C. blocks. Additional trial fabrication of the sand cement gunny bag (10:1 mortar) with local sand of FM≤1 was carried out. He pointed out that embankment material were tested in RRI after collection form Borrow pits and also form the existing embankment and the result was found satisfactory as per requirements.

After having all presentations finished, the floor was opened for discussion and comments by the participants.

Mr. Md. Harun Ur Rasheed, Superintending Engineer, Design-1 said that no reinforcement should be used in constructing the projected block as the projected portion is very small and we cannot provide required clear cover for M. S. bar here. He also said that we can think of using 10:1 sand cement mortar gunny bag after 14 days curing in BWDB work as the result found here after trial fabrication is satisfactory.

Mr. Amirul Hossain, Director, Planning-III thanked Mr. Johji Koizumi and the presenters for their activities and presentation. He wanted to know how these ideas of Pilot work will be disseminated. At this point, JET expert Mr. Hasan Zubair told that these will be disseminated through the Design Manual, O & M Manual & Construction Manual, which are under process of review and approval. Mr. Amirul Hossain suggested that the O & M Manual & Construction Manual may be made in Bangla as short hand out for the facilities of understanding by the field level staff & workers.

Mr. Md. Mahboob ul Kabir, Director, Contract & Procurement Cell wanted to know about the financial position and payment status to the contractor and time schedule of work. JET Expert Team Member Mr. Hasan Zubair replied that in every month IPC is submitted by contractor and that is recommended for payment by JICA Supervising Team Member and Contractor are getting money regularly. There is no problem in this regard. Time schedule for work completion is 15 of May/2016 & till now 73% of work has been done. If there is natural calamity then extra time may be required.

Then Mr. Dhirendra Nath Sarker, SE, Moulvibazar requested JICA to take more repair & rehabilitation work in vulnerable parts of embankment in Moulvibazar & expressed satisfaction over the works and for the dumping work already done on the upstream of the pilot work site.

Mr. Md. Abdul Basit, XEN, Design-VI said that although there was no difference between workability & shape size between the proportion of 1:3:6 & 1:2:4 manufacturing the projected blocks but definitely there will be difference in strength.

Appendix-7.4.2

At this point, Mr, Kh. Khalequzzaman, Chief Planning said that trial has been alright

but we should implement the item of projected block as per the specification & what

is mentioned in BOQ.

Then Mr. Md. Abdul Hye, Chief Engineer, Sylhet Zone told that BWDB officials

specially SO & Work Assistant are getting training here in the field tests for

embankment construction and also officials form Sylhet, Habiganj are observing these

in workshop. He requested JICA whether we can also utilize equipment like R/I

(Radio Isotope) for embankment works in Bangladesh. He also asked the contractor

representative in the workshop to give his views about the work. The contractor TSS

JV representative Mr. Bakshi Jubayer said that they learnt many things form this work

specially how to get the determination on constructing the work in time and how to

apply the specified construction procedure. They are happy with JICA's regular

payment against their executed work.

Mr. Kitamura, JICA representative told that after approval of the manuals JICA will

try to make these in Bangla,

At the end of the session, Mr. Kh. Khalequzzaman, Chief Planning said that JICA is a

good friend of Bangladesh and they are undertaking many projects in Bangladesh and

helping in our nation building process.

He said that quality works are being done in the pilot work site with necessary field

testing. Our people are also learning how to manage site in an appropriate way and

supervise properly.

He requested JICA to take such project in the Coastal Zone of Bangladesh

The workshop ended with thanks form the chair and with lunch.

Khondoker Khalequzzaman

Chief Planning

BWDB

Memo No- 2337

Distribution: (Not as per seniority)

Date: 11,04.2016

- 1. Additional Director General (Planning), BWDB, Dhaka.
- 2. Chief Engineer, Design, BWDB, 72, Green Road, Dhaka.
- 3. Chief Planning, BWDB, Dhaka.
- 4. Chief Monitoring, BWDB, Dhaka.
- 5. Chief Engineer, North-Eastern Zone, BWDB, Sylhet.
- 6. Superintending Engineer, Moulvibazar O & M Circle, BWDB, Moulvibazar.
- 7. Superintending Engineer, Design Circle-1, BWDB, 72, Green Road, Dhaka.
- 8. Superintending Engineer, Sylhet O & M Circle, BWDB, Sylhet.
- 9. Superintending Engineer, Design Circle-6, BWDB, 72, Green Road, Dhaka.
- 10. Director, Planning Directorate-1, BWDB, Dhaka.
- 11. Director, Contract & Procurement Cell, BWDB, Dhaka.
- 12. Director, Program, BWDB, Dhaka.
- 13. Director, O & M, BWDB, Dhaka.
- 14. Director, Planning Directorate-3, BWDB, Dhaka.
- 15. Chief Staff Officer (CSO), BWDB, Dhaka.
- 16. Executive Engineer, Office of the Chief Planning, BWDB, Dhaka.
- 17. Executive Engineer, Planning Directorate-1, BWDB, Dhaka.
- 18. Executive Engineer, Design Circle-1, BWDB, 72, Green Road, Dhaka.
- 19. Executive Engineer, Moulvibazar O & M Division, BWDB, Moulvibazar.
- 20. Executive Engineer, Sylhet O & M Division, BWDB, Sylhet.
- 21. Executive Engineer, Habiganj O & M Division, BWDB, Habiganj.
- 22. Executive Engineer, Sunamganj O & M Division, BWDB, Sunamganj.
- 23. Sub-Divisional Engineer, Design Circle-1, BWDB, 72, Green Road, Dhaka.
- 24. Sub-Divisional Engineer, Sylhet O & M Division, BWDB, Sylhet.
- 25. Sub-Divisional Engineer, Habigani O & M Division, BWDB, Habigani.
- 26. Sub-Divisional Engineer, Sunamganj O & M Division, BWDB, Sunamganj.
- 27-30. 04 (Four) Sectional Officers, Moulvibazar O & M Division, BWDB, Moulvibazar.
- 31. 01 (One) Sectional Officer, Sylhet O & M Division, BWDB, Sylhet.
- 32. 01 (One) Sectional Officer, Habiganj O & M Division, BWDB, Habiganj.

C.C.

- 1. C.S.O. to Director General, BWDB, Dhaka.
- 2. PA to Additional Director General (Planning), BWDB, Dhaka
- 3. Yosuke USUI, Team Leader/Expert for O & M, JICA Expert Team, the project for Capacity Development of Management for Sustainable Water Related Infrastructure.

4. Office Copy

MMDRINA STOS 35 (Khondaker Khalequzzaman)

Chief Planning, BWDB, Dhaka

Annexture-A

Participant List

for

The Workshop-2 on the Activities of Pilot Repair Works of Manu River Right Embankment

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: April 02, 2016,

Time: 08:00 pm - 14:00 pm

Venue: Conference Room, 2nd Floor, Hotel Kairan, Moulvibazar

No	Name	Title/Organization	Phone No Email Address	Signature
1	Khondaker Khaleguzzaman	Chief Planning BWDB		
2	Ml. Abdul Hye	Chief Engo. BWDB		
3	nd. Mahbur Rahman	Director Program PSWDB		
4	Md. Abdul Basif	Bir Enginew, 1 Desnign Livele-6 BWBB		
5	Md. Harvn Ur Rashud	Superintending Evginen Deargn - 1, Bross		
6	Md. Faizur Rob	Executive Engineer: (Adl.ch) BWDB, Marlvibazar		
7	Md. Shamsul Hague	Executive Engineer Mechanical Division BWDB, Mondribasan		
8	Faiz Ahmed Khan	Sub-Divisional Ergineer, Moulvibator Mechanical Division, BWDB, Moulvibazar		

No	Name	Title/Organization	Phone No Email Address	Signature
9	M L Shaikat	Sub-Divisional-Byr Habigary OSM Sub- Division-11 BWDD Habigary		
10	Saloyasachi Chuwdhury	Executive Engineer Habigaris O Er M Phuis BWOB, Halsiganj	ia.	
11	MD. ABDUL MANNAN	Sub-Assis land Engineer, Bolla of M Seelion, BWDB Habigans.		
12	ASHRAFUL ALAM	WORK Assistant BWDB Moulvibgar. 08 H Division		
13	MD. JOHIRUL HAQUE	Co-Chairman T. S. S (JV) Moulvi Bazas		
	Bakshi Jubayesz Ahmed	Advisiour T.S.S.(JV) Moulsibagun		
15	Ergr. AFM Taulid Jamein	AE, Design-1, BWDB, Dhaka		
16	nd. Afrique 181am	Sul Asst Engineer BWDB Houlinberry		
17	N.D. Abdel Momin	BUDD Mar Nibary		
18	Md. man Ali	SDE BWDB Moulovibuzar		

No	Name	Title/Organization	Phone No Email Address	Signature
19	johji Koizumi	A JET member, Project Manager for Riet Repaillon, Bechonal officer.		
20	Md Abdul Kadert.	Bectional officer. Rajnagar 0 & H sedim-11 BHDB, Moulvibazar		
21	Md. Mainul Inlam Deputy Project Manager, JET	JET, JICA		
22	Md. Knairal 9slam	Executive Engr. BWDB		
23	Md. Mahleoob-ut-Kali	Riveter BWOB		
24	Dhisendra Hath Parker.	S.E. Bring. Moulviloasor.		
25	Tatsuga Mochizuki	TLCA.		
26	Koichi Kitamura	JRABDOSTie		
27	Kazum Itsu	JICA Expert		
	MURADKA	to BWDB		
28	Md. Amirul Horsain	Planning -3 BWDB, Dhahu		

No	Name	Title/Organization	Phone No Email Address	Signature
29	Hasan Zubuer	JICA Senior Expert		
30	Yosuke USUI	JICA Senir Expert JICA Expert Team/ Team/Leader	Sale 1	
31	Muntasire Ion Mohsin	Administrator JICA Study Team PCDMSWRI		
32				
33				
34				
35	,			
36				
37		7*		

Final Inspection Step-1 for the Pilot Repair Works on

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: March 11 & 12, 2017

Time: 09:15 - 14:00

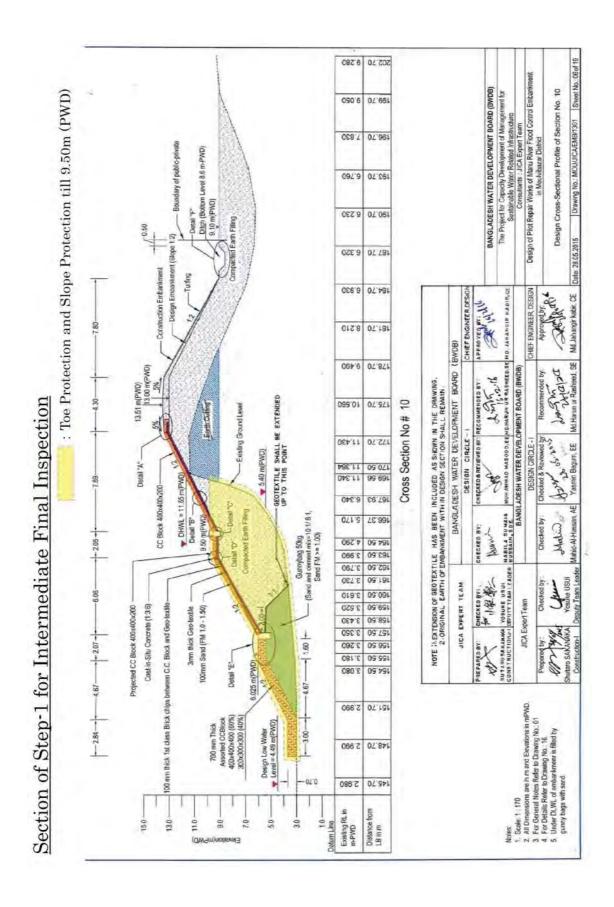
Venue: Pilot Repair Work Site, &

Conference Room, Hotel Rest Inn, Moulvibazar

AGENDA

Session 1	March 11, 2017
14:00 – 14:45	Move to Pilot Repair Work Site (from BWDB O&M Moulvibazar)
14:45 – 16:00	Session 1 in Field: Site Inspection
	1) Toe Protection
	2) Slope Protection up to intermediate berm (9.5m (PWD)
	3) Modification of Termination Area
Session 2	March 12, 2017
- 11:30	Come to Hotel Rest Inn (All participants)
11:30 – 13:00	Session 2: Discussion of Inspection for Step-1
	1. Opening Remarks by Superintending Engineer, Moulvibazar O&M BWDB
	2.Briefly explanation for construction sand-cement mortar gunny bags
	construction (10min) by Project Manager of the Works, JICA Expert Team
	3. Discussion for Inspection for Step-1
	1) Toe Protection
	2) Slope Protection up to intermediate berm
	3) Others
	i) Termination Area
	ii) Date of Final Inspection on 9 or 10 April, 2017
	4. Closing Remarks by SE, Design Circle 2 BWDB
13:00 – 14:00	Adjourn and Lunch

A.7-42



- 1. Outline of the Works
- 1) Commencement date: 25 November, 2015 Intended Completion Date: 30 April, 2017
- 2) Contract value; Taka 65,110,614.96.-
- 3) Main work quantities; Proposed river bank is located at the right bank of Manu River in Moulvibazar. Proposed length of bank is 210 m and main work items (original quantities) are follows;
- i) Earth work; excavation is 7,600 m3 and filling/embankment is 17,682 m3,
- ii) Toe Protection works; dumping CC-block 40*40*40cm is 16,998 nos and 30*30*30cm is 26,861nos and sand-cement mortar gunny bags foundation is 110,088 nos and
- iii) Slope Protection works; CC-block 40*40*20cm with projection part (1:2:4 mix) is 21,284 each, CC-block 40*40*20cm (normal, 1:3:6 mix) is 6,521 each and Geo-texitle sheet for slope is 4,940m

2. Outline of Step-1

The works of Toe Protection and Slope protection from Toe Wall (top:6.025m PWD) to intermediate berm level (9.5m PWD) is to be supposed for Step-1.

The location of Step-1 is shown on attached location sketch and main work item is stated below table;

Table Main work item of Step-1 of Toe & Slope Protection

Type of	Work item	(Quantity of	works dor	ne	Remark
work		unit	Original	Amended	Work	
					done	
Toe	Dumping CC-block 40*40*40cm	Each	16,998	ditto	16,680	310 reserved
Protection	Dumping CC-block 30*30*30cm	Each	26,861	ditto	26,135	715 reserved
	Sand cement (10:1)gunnybag	No.	44,035	0	100	According to
	foundation					Trial
	Sand cement (8:1)gunny bag	No.	66,053	110,088	108,000	Fabrication
	foundation					
	Work item	unit	Propos	ed Q'ty	Work	by 08/03/10
Slope					Done	
Protection	CC-block 40*40*20 with	Each	9,5	522	8,950	1 st Slope
	projection part,	Each	4,4	109	3,683	Berm
	1:2:4 concrete mix		13,	931	12,633	Total
	Geo-texitle sheet for slope,	Sqm	1,1	144	833	Behind TW
	t=3mm	Sqm	1,5	524	1,504	1 st Slope
		Sqm	70	05	681	Berm
			3,3	373	3,018	Total

Record of Final Inspection Step-1

Name of the Works: Pilot Repair Works of Manu River Flood Control Embankment in Moulvibazar District (JICA Contract Agreement No.: JICA (BD) 11-12001) (PRW)

Session1. Site Inspection

Date:

14:30-16:00, 11th March, 2017

Place:

The Site at Notaria, Akhailkura, Moulvibazar

Session2. Explanation and Discussion

Date:

12:15 - 13:15, 12th March, 2017

Place:

Conference room of Hotel Rest Inn, Moulvibazar

The second session was presided over by Mr. Md. S. M. Shahidul Islam, Seperentending Engineer, Moulvibazar O&M Circle, BWDB

- 1. Attendance and Icons (abbreviations) for each party
- 1) Attendance is referred to attendance list (Attachment #1).
- 2) Icons or abbreviations used in this Inspection are as follows, unless otherwise specified;
- JICA: Procuring Entity, Japan International Cooperation Agency Bangladesh Office and JICA long Term Expert for BWDB
- JET: Project Manager (PM), Senior Expert of JET and Deputy Project Manager (DPM) entrusted or appointed by JICA [JET: JICA Expert Team]
- TSS: the Contractor, T.S.S. (JV)
- BWDB: Superintending Engineer (SE) of Design Circle (DC) 1 and 2 BWDB and Superintending Engineer (SE), Executive Engineer (Xen) Mechanical & Civil, Sub-Divisional Engineer (SDE) and Sectional Officer (SO) and other officers from BWDB, Moulvibazar
- 2. Outline of the Works
- 1) Commencement date: 25 November, 2015

Intended Completion Date: 30 April, 2017

- 2) Contract value; Taka 65,110,614.96.-
- 3) Main work quantities; Proposed eroded river bank is located at the right bank of Manu River in Moulvibazar. Proposed length of bank is 210 m and main work items (original quantities) are follows;
- i) Earth work; excavation is 7,600 m3 and filling/embankment is 17,682 m3,
- ii) Toe Protection works; dumping CC-block 40*40*40cm is 16,998 nos and 30*30*30cm is 26,861nos and sandcement mortar gunny bags foundation is 110,088 nos and
- iii) Slope Protection works; CC-block 40*40*20cm with projection part (1:2:4 mix) is 21,284 each, CC-block 40*40*20cm (normal, 1:3:6 mix) is 6,521 each and Geo-texitle sheet for slope is 4,940m2

Record of Final Inspection Step-1 on 11 & 12 March 2017

R



3. Objective of Final Inspection Step-1

To facilitate investigation of the first slope of Protection Work from 6.025m level, including Toe Protection works to the berm level 9.50m, intermediate Inspection is to be done by not only supervising team (joint team of JET and BWDB O&M Moulvibazar) but also by some BWDB engineers concerned with this Pilot Repair Works before flood comes. The workmanship and quality of the works done for Step-1 can be checked and inspected on the site before water level becomes above EL 6.025 m (top of Toe Wall) up to intermediate berm at EL 9.5m.

II. Final Inspection Step-1

1. Outline of Step-1

The works of Toe Protection and Slope protection from Toe Wall (top: 6.025m PWD) to intermediate berm level (9.5m PWD) is to be supposed for Step-1.

The location of Step-1 is shown on attached location sketch and main work item is stated below table;

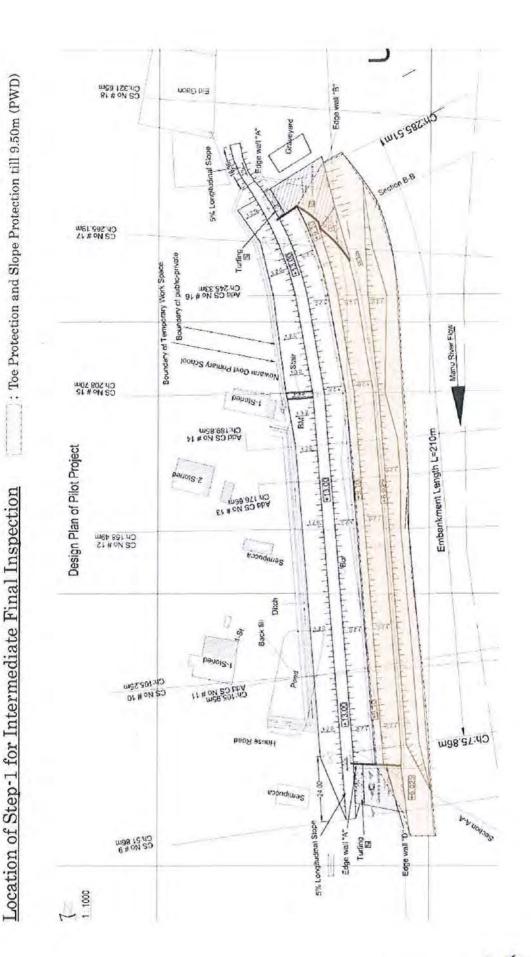
Table Main work item of Step-1 of Toe & Slope Protection

Type of	Work item	(Quantity o	е	Remark	
work			Original	Amended	Work done	
Toe	Dumping CC-block 40*40*40cm	Each	16,998	ditto	16,680	310 reserved
Protection	Dumping CC-block 30*30*30cm	Each	26,861	ditto	26,135	715 reserved
	Sand cement (10:1)gunnybag foundation			According to		
	Sand cement (8:1)gunny bag foundation		66,053	110,088	108,000	Trial Fabrication
	Work item	unit	Proposed Q'ty		Work Done	by 10/03 /2017
Slope	CC-block 40*40*20 with projection part, 1:2:4 concrete mix	Each	9,	522	8,950	1 st Slope
Protection		Each	4,409		3,683	Berm
			13	,931	12,633	Total
	Geo-texitle sheet for slope, t=3mm	Sqm	1,144		833	Behind TW
		Sqm	1,524		1,504	1 st Slope
		Sqm	705		681	Berm
			3	373	3,018	Total

2 Record of Final Inspection Step-1 on 11 & 12 March 2017

R

小桌



心小泉

505 10 8 580 Drawing No.: MOUJJICA/EMB/1307 | Sheet No.: 06d/19 Sustantula Water Related Infractucture
Consultants - JICA Expert Toam
Design of Plot Repair Works of Manu River Food Control Embanhment Design Cross-Sectional Profile of Section No. 10 BANGLADESH WATER DEVELOPMENT BOARD (BWDB) : Toe Protection and Slope Protection till 9.50m (PWD) The Project for Capacity Development of Management for 090 6 07.661 008.7 07.981 Digh (Botom Level 3.6 m-PWD) 9 10 m(PWD) 091'9 07.EE1 -Detail 7 9 530 07.091 Design Embankment (Slope 1.2) Date, 28,05,2015 9350 07.781 Construction Embaniment 066.0 07.281 JANNAD MASOOD, ES MENABUN UR RASHEED, SE MO. JANANCIE KARIH, CI CHEF ENGINEER, DESIGN CHIEF ENGINEER, DESIG Md. Jahangr kebir, CE The baronder 012.0 04,181 BANGLADESH WATER DEVELOPMENT BOARD (BWDB) McHarun ur Rasheed, SE 0616 07.871 1351 m(PWD) (13.00 m(PWD) Delaher L BANGLADESH WATER DEVELOPMENT BOARD (BWDB) NOTE JIENTENSON GEGEOTEXTILE HAS BEEN INCLUDED AS SHOWN IN THE DRAWING, Z.OPIGINAL, EARTH OFEMBANKMENT WITH IN DESIGN SECTION SHALL REMAIN. GEOTEXTILE SHALL BE EXTENDED UP TO THIS POINT 10 Section of Step-1 for Intermediate Final Inspection 10,560 04'941 の年の活 - Existing Ground Level Cross Section No # Checked & Revened by: 11 430 DESIGN CIRCLE DESIGN CIRCLE - 1 CHECKED & REVEWED BY Yasmin Begum, EE ₩ 5 40 m(PWD) Detail 'A' 046.11 88.051 886.11 08.051 make → DHWL = 11.85 m(PWQ) CC Block 400x400x200-68.79 Ship-4-Hassen AE Gunnybag 50kg - (Sand and cement mix+101/81, Sand FM >= 1,00) 0219 16.337 9.50 m(PVIQ) Checked by Male くる CHECKED BY: - 205 -4,290 09 79 066.8 03.891 3,790 162.50 STRUCTION- DEPUTYTEM LABOR 3 230 09.19 女一体教人 sake USUI JICA EXPERT TEAM 019.6 09.09 90'9 CHECKED BY. JICA Expert Team 3 250 09.691 Cast in Silu Concreto (13:5) 100 mm thick 1st class Brick chips between C.C. Block and Geo-lexille Jamm thick Geo-textile 100mm Sand (FM 1.0 - 1.50) Projected CC Block 400x400x200 09'891 All SAKSANAKA 3 350 09 491 -- 201-3,260 09 991 1.80 081.E 122 20 A Detail 'E' 164.60 3.080 4.67 187 Notes:
1. Scale 1.170
2. All Dimensions are in m and Elevations in mPMD.
2. All Dimensions see in m and Elevations in mPMD.
3. For General Notes Refer to Drawing Not. 01
4. For General Notes Refer to Drawing Not. 16
5. Under DLWL of end-exhibitor is filled by gurry bogs with seed. 151,70 2,990 700 mm Thick Assorted CCBlock 400x400x400 (6091) 300x300x300 (4091) Design Low Water

Tevel = 4.49 m(PWD) -284 300 148,70 3,990 2.980 07.841 Existing RL in m-PWD Distance from LB in m 110 50 30 13.0 15.0 Defum Line Elevation (mPVVD)

4 Record of Final Inspection Step-1 on 11 & 12 March 2017

2. Site Inspection Record in Session -1

Surperintending Engineer (SE) Desgin Circle (DC) 1 and 2 BWDB, JICA long term Expert to BWDB and SE O&M circle Moulvibazar, Xen Civil/ME and other staff Division, Moulvibazar and JICA Expert Team visited and inspected the Works on the evening 11 March, 2017.

- Toe Protection Inspected by the team and found OK.
- Slope Protection Inspected by the team and found OK.
- 3) Modification of Termination Area
- After observing and inspecting the condition of down-stream termination area, method/treatment for protection for such area (saying area C), has been agreed among the participants using pitching placing block (1:3:6mix, with projection part) with sand mat/filter geo-sheet and brick chips as proposed by JET.
- After observing and inspecting the condition of up-stream termination area, it is decided that;
- i) further cutting for the higher elevation existing ground beside the last portion of Toe Wall and ending Edge Wall of berm in order coming water not to be pooling on such portion,
- ii) after such cutting the area, pitching placing block (1:3:6mix, with projection part) with sand mat/filter geosheet and brick chips will be applied for transmission are \square and \square ,
- iii) between area A /B and river side Toe Protection area will be filled assorted CC-block with more than 2 layer and
- iv) after i) cutting and dressing for further pitching covering, such area shall be surveyed and make sketch, Drafting Revised Design Drawing will be made based on such survey result by CAD method.
- -It is advised that gap of dumping CC-block beneath the Grave yard will be filled with further CC-blocks.

3. Minutes of Discussion in Session 2 at conference room

Project Manager of the Work (PM) briefly gave explanation for works done, especially "Toe Protection" using sand-cement mortar gunny bags foundation using projected recording Photos and record of Work Shop held last year with help of Power Point presentation.

After the deliveration by Project Manager, Mr. Johji Koizumi, Mr Haroon, Superintend Engineer, Design Circle II commented as follows;

- (a) In executing the Pilot Repair Works, the adverse situation faced last year and within of in this year shall have be mentioned in the Construction Manual for lessons learning.
- (b) The case of delay in the execution of the works shall have to been mentioned also
- (c) Soil boring in the completed embankment shall have to be made for determining C % φ value.
- (d) After completion, a sign board stating the work including name of JICA & BWDB may be installed in the site
- (e) Still today earth work & embankment in the country side, drain construction, stair construction are left out. Utmost effort should be taken by the Contractor and monitoring by JET is necessary to complete the work within 30 April, 2017.
 - 5 Record of Final Inspection Step-1 on 11 & 12 March 2017



- (f) Here, we found that dumping has been done properly upto 6.025 R/L (top level of Toe Wall) from the bed of the river over the same cement mortar gunny bag foundation which should be followed by BWDB.
- (g) Our Engineer should follow the working procedures of this work
- (h) the drawing section in which gunny bag has been written should be written as sand cement mortar gunny bags
- Mr. Muraoka, JICA long term Expert commented as below;
- (a) Contractor and JET deserve thanks for accomplishing the progress of works up to 95 % till today.
- (b) All sequences of work including compaction activities should be shown in the final document.
- (c) As built drawing shall have to be prepared properly showing all the changes and actual measurements. And Final pictures (As built drawing) will be the most important for the future river infrastructure management by BWDB.
- (d) Proper planning should be done for completion the Works in time. The Work may have been started as early as possible just monsoon is over.

For this comment, Mr. Hasan Zubair, senior expert of JET replied that in the Pilot Repair Works all the land required have been given by public volunteerly and there was paddy in the land. So the work was started after harvesting paddy in the middle of December. If land is acquired and Crop compensation is given then work can be started any time.

Mr. Bejoy, Xen requested to place below in the area outside project length near the Grave yard from the lowest elevation. JET Team told that it will be done by the available blocks keeping budgetary provision as per the amount approved by JICA within the time available up to 30th April 2017. But there is little scope of any extra work now.

TSS JV expressed the view that they will complete all the work by 1st week of April 2017.

At the end, Mr. Md. S. M. Shahidul Islam, Seperentending Engineer BWDB, Moulovibazar thanked JICA, BWDB officials & JET for this work and requested for taking this type of work in future in other vulnerable area of Manu river. He also requested JICA to help in financing the DPP for the Manu River Rehabilitation project preparation is under process & approval.

The meeting ended with thank from the chair.

6 Record of Final Inspection Step-1 on 11 & 12 March 2017

化 小泉

III. Others

1. Schedule of Final Inspection.

Upon completion of the Works, Final Inspection will be held on 9 or 10 April, 2017

2. In the Final Inspection BWDB Engineer from Dhaka, Moulvibazar & other adjacent area of BWDB & JET

& JICA representative will attend preferably.

R. Che Kolonty
16/03/17
Bejoy Indra Sanker Chakraborty

Executive Engineer, BWDB

Moulvibazar O & M Division

小泉 第二

Johji Koizumi

Project Manager,

Pilot Repair Works

Photographs of Final Inspection Step-1:



Ph1. At the berm of end point at down-stream: observing termination area of down-stream on 11 March 2017



Ph2. At the berm of edge of First Slope in up-stream: checking existing condition of termination area of up-stream on 11 March 2017



Ph3. Inspection were conducted by SE DC1, DC2, JET Experts and SE, X'en Mech/Civil and other staff of BWDB Moulvibazar on 11 March 2017



Ph3. Session 2: Discussion for Final Inspection Step-1 held the meeting room of Rest Inn hotel, Moulvibazar on 12 March 2017

Attachment # 1: Attendance List of Final Inspection on12 March 2017

#2: Progress Chart for Pilot Repair Works: for the works done by the end of February 2017

#3: Reference photos during construction of sand-cement mortar foundation

小泉

Participant List

for

The Workshop for Intermediate Final Inspection Step-1 for the Pilot Repair Works of Manu River at Moulvibazar

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: March 12, 2017

Time: 09:00 pm - 13:00 pm

Venue: Worksite & Conference Room, 2nd Floor, Rest Inn Hotel, Moulvibazar

No	Name	Title/Organization	Phone No Email Address	Signature
1	YASMIN BEGUM	SE /BNDB		
2		0.2 (17		
3	Johji KOIZVHI	Project Manager of Pilot Repair Works.	, , , , , , , ,	
4	Md. Anisur Rahman	XEN/BWDB		
5	Be'soy Indra Sanker Chaknabonty	XEN/BWDB		
6	M. A. Honnan Khan	SDE/BUDB		
7	Md. Khalid bin olid	SDE (BWDB		
8	Hasem Luberia	JICA, Expirit		

No	Name	Title/Organization	Phone No Email Address	Signature
9	Md. shahadat hossain	Sub-Assis. Eng.		
10	Md. Hasan Parves Riadi	SAE/SO BWDB		
11	Md. Shiful Islam	SAEJSO(Mech:) GWDB.		
12	Md. sakib Hossain	SAE SO BWDB		
13	Arrif Hossain	Sub-Asst, Engineer.		
14	Md. Mukh Le chum Rahman Talukdan	Assl. Engineer BWDB, Moulibogar.		
15	S.M. SHAHIDULISLAM	Superintending Expineer, moulvibazar ozmaine		
16	Kazumitsu MURAOKA	JICA/Expert. TO BWDB		
7	Md. Harvn ur Rashud	Superintending Enggnen Design Geli-2		
8	YASMIN BEGUN			

No	Name	Title/Organization	Phone No Email Address	Signature
19	Md. Iman Ali	SDE sworling	Andread of Lights	
20	Nd. Abdul Kaden	Sectional officers. Rajnagar 0 8M Section 2 BWDB, Moulvibazar		
21	Md. Johnnel Hague	TSS(JV)		
22	SYED RAZAUR RAMM	Tss (Ju)		
23	Md. Mainul Iolam	DPM of PRW CDMSWRI		
24	nd. Atignl isla	B W DB Mondin Souton		
25	Muntasir Ibn Mohsin	Administrator TICA, CDMSWRI		

Inspection for the Pilot Repair Works

on

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

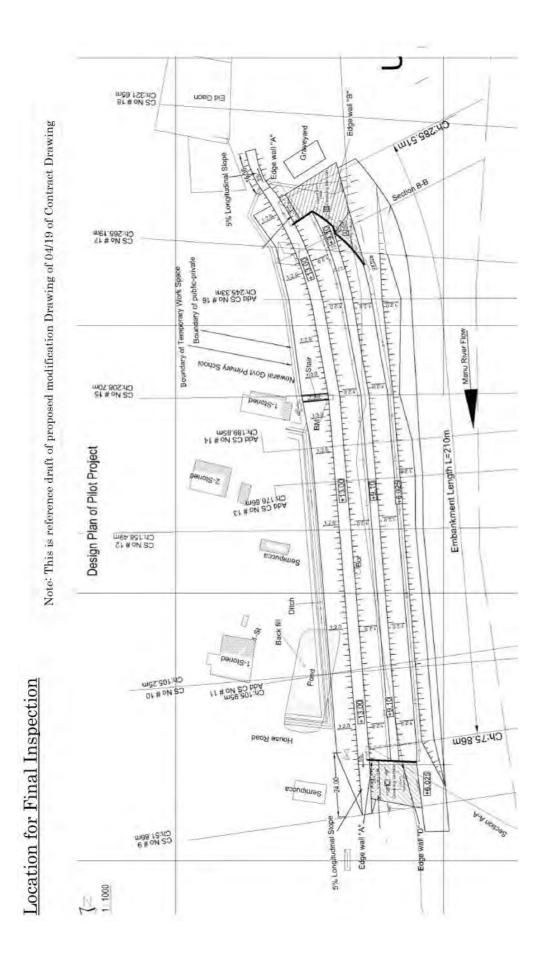
Date: April 27, 2017 Time: 9:15 – 11:00

Venue: Pilot Repair Work Site, Akhailkura Union, Sadar Upazilla, Moulvibazar District

AGENDA

08:30 – 9:15	Move to Pilot Repair Work Site (from Hotels)
09:15-11:00	Site Inspection and Discussion
	Jointly inspection for the site condition and the progress of the Works at the final stage of the Works Judging / making decision whether "Time Extension" Is required or not.
11:00 – 17:00	Move from the site to Dhaka

Remark: Due to unavoidable circumstances caused by rainfall at the end of March & April 2017, the Works hampered much. As such there is every possibility that the Works cannot complete in due time. So, the work shop has been postponed. It will be organized at a later stage.



202,70 9,280 Drawing No.: MOU/JICA/EMB/1301 Sheet No.: 06 of 19 The Project for Capacity Development of Management for Castainable Water Refeated Infrastructure Consulations: "ICAA Expet Team Design of Pilot Repair Works of Manu River Flood Control Entrankment BANGLADESH WATER DEVELOPMENT BOARD (BWDB) Design Cross-Sectional Profile of Section No. 10 090'6 04'661 7.830 07.861 in Moulvibazar District - Boundary of public-private Ditch (Bottom Level 8.6 m-PWD) 9.10 m(PWD) 097.8 07.881 -Detail "F" 052.0 190.70 Compacted Earth Filling - Design Embankment (Slope 1:2) 6.320 07.781 Construction Embankment Turfing 069.9 07.481 CHIEF ENGINEER, DESIGN Md. Jahangir kabir, CE CHIEF ENGINEER, DESIG 8.210 07.181 BANGLADESH WATER DEVELOPMENT BOARD (BWDB) 13.51 m(PWD) 13.00 m(PWD) Delpha 064.6 07.871 Md. Harun ur Rasheed, SE BANGLADESH WATER DEVELOPMENT BOARD (BWDB) NOTE TEXTENSION OF GEOTEXTILE. HAS BEEN INCLUDED AS SHOWN IN THE DRAWING. 2. ORIGINAL EARTH OF EMBANKMENT WITH IN DESIGN SECTION SHALL REMAIN. GEOTEXTILE SHALL BE EXTENDED UP TO THIS POINT 9 10.560 0/19/1 EarthCutting Existing Ground Leve Cross Section No # DESIGN CIRCLE -Vasmin Begum, EE 11.430 172.70 DESIGN CIRCLE -▼ 5.40 m(PWD) Detail "A" P36,11 03.071 046.11 38.631 Detail "B" CC Block 400x400x200 £6.78r 6.340 Mahid-Al-Hassan, AE Compacted Earth Filling HUSSAIN, SOE. Gunnybag 50kg (Sand and cement mix=10:1/8:1, Sand FM >= 1.00) 071,8 75.881 CHECKED BY: Checked by 9.50 m(PWC Male -2.05-4.290 Detail "D" 09'491 066.6 08.681 162.50 3.790 SUTARUSAKANAKA YOSUKE USUI 067.6 08.181 CHECKED BY: Checked by JICA EXPERT TEAM 90.9 019.6 08.091 JICA Expert Team 029.60 3.520 Cast-in-Situ Concrete (1:3:6) 100 mm thick 1st class Brick chips between C.C. Block and Geo-textile Projected CC Block 400x400x200 3mm thick Geo-textile 100mm Sand (FM 1.0 - 1.50) 064.6 03.831 HIP AND HAND 036.6 08.781 Construction-I -201-REPARED BY Prepared by: 1.60 092.8 03.861 081.5 03.331 Detail "E" 3.025 m(PWD) 154.50 3.080 4.67 1. Scale: 1 : 170
2. All Dimensions are in mand Elevations in mPWO.
3. For General Notes Roler to Chawing No.: 01
4. For Deals Refer to Drawing No.: 01
5. Under DLW. of embandment is filled by gumy/bags with sand. 151,70 2,990 700 mm Thick Assorted CCBlock 400x400x400 (60%) 300x300x300 (40%) Design Low Water ▼ Level = 4.49 m(PWD) -2.84 3.00 148.70 2.990 -02'0 2.980 07.841 Existing RL in m-PWD Distance from LB in m 9.0 13.0 7.0 5.0 3.0 15.0 11.0 Datum Line Elevation(mPWD)

Typical Cross Section of Final Inspection

- 1. Outline of the Works
- 1) Commencement date: 25 November, 2015 Intended Completion Date: 30 April, 2017
- 2) Contract value; Taka 65,110,614.96.-
- 3) Main work quantities are shown below table

Table Main work item of Pilot Repair Works

T (C	Quantity o	f works		
Type of work	Work item	unit	Original Design	Amended Design	Proposed Final works done	Remark
Length	Proposed length of embankment (on crest)	m	210	200	200+ Up/s 10m Down/s23m	Suite to site condition, but add covering transition 33m
Earth	Cutting and excavation	m3	7,600	4,957	4,957	Remaining original
work	Filling/embankment	m3	17,682	15,697	15,697	ground
Toe Protection	Dumping CC-block 40*40*40cm	Each	16,998	ditto	16,690	
	Dumping CC-block 30*30*30cm	Each	26,861	ditto	26,851	
	Sand cement (10:1) gunny bag foundation	No.	44,035	100	100	According to Trial Fabrication.
	Sand cement (8:1) gunny bag foundation	No.	66,053	110,088	109,050	(Work Shop on Jan2016)
Slope	CC-block 40*40*20 with	Each	21,284	ditto	19,882	
Protection	projection part,1:2:4					
	concrete mix					
	CC-block 40*40*20 plain,	Each	6,521	ditto	11,135	Including covering Termination Area
	1:3:6 concrete mix					
	Geo-texitle sheet for Slope Protection, t=3mm	Sqm	4,940	6,084	5,948	Variation No.4 and covering Termination Area

Minutes of Site Inspection

Name of the Works: Pilot Repair Works of Manu River Flood Control Embankment in

Moulvibazar District (JICA Contract Agreement No.: JICA (BD) 11-12001)

(PRW)

Site Inspection

Date:

9:15-11:00, 27th April, 2017

Place:

The Site at Notaria, Akhailkura, Moulvibazar

The joint site Inspection was made by Project Director and Project Manager of the Project from BWDB. JICA representatives and Supervising Team (consist of JICA Expert Team and BWDB O&M Office, Moulvibazar).

- 1. Attendance and Icons (abbreviations) for each party
- 1) Attendance is referred to attendance list (Attachment #1).
- 2) Icons or abbreviations used in this Inspection are as follows, unless otherwise specified;
- JICA: Procuring Entity, Japan International Cooperation Agency Bangladesh Office and JICA long Term Expert for BWDB
- JET: Project Manager (PM), Senior Expert of JET and Deputy Project Manager (DPM) entrusted or appointed by JICA [JET: JICA Expert Team]
- TSS: the Contractor, T.S.S. (JV)
- BWDB: Chief Planning and Executive Engineer, BWDB (Project Director (PD) and Project Manager of the Project, Superintending Engineer (SE), Executive Engineer, and Sectional Officer (SO) and other officers from BWDB, Moulvibazar
- 2. Objective of Site Inspection
 - Jointly inspect the site condition and the progress of the Works at the final stage of the Works
 - 2) Judging / making decision whether "Time Extension" Is required or not.
- 3. Comments/suggestions and instruction at Site Inspection
- 1) Drainage: earthen drain alongside the toe of country side proposed bank slope
- Pooling water is found in excavated drain and such pooling water may seriously affect the embankment, when water will pass through the drain and there will be erosion as the soil is sandy. The berm from the country side toe is only 0.65m width which may be eroded and ultimately the embankment may be damaged. Also the pooled water in the drain may be seeped through the embankment body.

1 Minutes of Site Inspection on 27 April, 2017

A.7-60

- -Engineer in charge of Design of Design Circle BWDB gave the comments, through telephone, that the Drain of original Design Drawing had better t not to be constructed because of the same reasons mentioned above.
- -Alternative counter measure for that portion, the Inspection team recommends that existing some puddle/swamp area nearby the toe may be filled and the area proper level with proper gradient to facilitate overland drainage to lower area.

from proposed toe of the bank towards country side connecting ground not as to stuck/pile water.

2) Stair Case

- Existing stair case is found remaining just beside the proposed Stair, existing stair must be
 demolished and remove the RCC material because remaining RCC structure shall hamper the
 stability and strength of proposed embankment with less bonding of earth and making water
 way inside the bank.
- PM of Pilot Repair works instructs TSS to measure the volume of the existing RCC and to
 estimate extra cost for demolishing works. PM will evaluate them and make Variation to TSS to
 do so accordingly.

3) Gaps at construction joint at Crest

- Gap of construction joint between placing cc-block and Gap concrete connecting placing ccblock on 2nd Slope. The reasons are considered;
 - i) settlement of constructed embankment below the placing cc-block on the slope or
 - ii) not good workman-ship for casting Gap concrete or other causes
- TSS will repair such gaps in order to be satisfied of original Gap concrete
- If in the defect liability period such gap is increasing, such movement of gap is considered as "Defects" responsible with TSS.

4) Sliding of the country side slope

- It is found that the some portion of country side slope has slided, which recently were covered with turf. The reasons are considered of lack of compaction of such area slope.
- TSS is instructed that such area shall be repaired

5) Crack found on to the Crest

- Between (design) Cross Session (C/S) #16 and #17, there are some cracks on the crest near country side.
- The reason must be considered of lack of compaction against such embankment work, so TSS is instructed to compact such embankment area.
- TSS are strongly cautioned that the failure/slipping/sinking embankment because of lack of proper bonding between original (old) ground/earth and new embankment and not proper embankment workmanship with lack of compaction. It will be the responsibility for TSS to carry out proper embankment works.

Minutes of Site Inspection on 27 April, 2017

6) Deformation of surface of placing cc-block

- Around C/S #16-17, a little deformation of the surface of placing cc-block on the 2nd slope, in case of the cause by the settlement of embankment, the further deformation and settlement will be the responsibility of TSS (JV).

4. Discussion for Judging of "Time Extension"

After discussion and on the basis of site Inspection, the team of Inspection concluded that "The Works shall have to be extended beyond Intended Completion Date, 30 April 2017 as per current Contract due to unavoidable circumstances (bad weather and heavy rain).

And it is recommended that extending days are 30 days. That is the Intended Completion Date is now 30th May 2017.

5. Others

1) Final Inspection will be conducted after completion of the Works.

(Khondaker Khalequzzaman)

Chief Planning BWDB,
Project Director of the Project for
Capacity Development of
Management for Sustainable Water
Related Infrastructure

(Johji Koizumi)

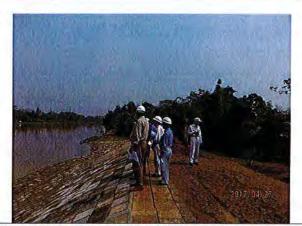
The Project Manager of the Pilot
Repair Works of Flood Control

Embankment in Moulvibazar

District.

A member of JICA Expert Team

Photos: Site Inspection on 27 April 2017



Ph1. Jointly Inspection from the crest of downstream area



Ph2. Proposed Drainage at Toe of proposed country side slope. Existing swamp small ponds.



Ph3. Old and new RCC Stair Case on to the Slope near the School.



Ph4. Checking cracks on to the crest of the bank at about C/S # No.17



Ph5. Checking construction joint between placing cc-block on cracks and Gap concrete at about C/S # No.16



Ph5. Discussion for the site Inspection and Judging the necessity of Time Extension.

Attendance List of Site Inspection on 27 April 2017

Participant List

in

Site Inspection and Discussion for the Pilot Repair Works of Manu River at Moulvibazar

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: April 27, 2017

Time: 09:15 pm - 11:00 pm

No	The same of the sa	Title/Organization	Phone No Email Address	Signature
1	Kh. Khaleguzzaman	Chief Kanning BWDB.		Sant Sold as I
2	3.M. Shahidul Islam	Superintending Englineer, mould be or in circle, BNDB	zar	100
3	Dr. Shawal Chandra Day	E. E. Office plan chief Planning 13WOB		
4	Anisuzeaman Chowdhuny	Deputy Anggram Managur DICA		
5	Koveumitsu Muraska	JICA Expent		
6	Md. Hasan Lubair	JICA Servier Expert		
7		Scettmal offices BWDB. Howhitaear		
8	Johji KOIZUHi	PM-PRW TICA Expent		

1

Participant List

5 Minutes of Site Inspection on 27 April, 2017

No	Name	Title/Organization	Phone No Email Address	Signature
9	Md. Mainul Islam	DPM-PRW JET Team	mule il	
10	Md. Idiml Harus	T \$ \$ (7 V)	med Godd A and source ma	
11	Ahrad Soli Muliuldia	3£ 15 TSS (JV)	S Faeth Room News	nani Prih
12	Taitulomik	Land owner	The section and constitution of the section and constitution of the section and countries of the section of the	
13	Murtasir Ibn Mohsin	Administrator PCDMSWRI		
14	All the second s	Allams v bill to rean		
15	and Victorian American P. M. S. France	i Respublication (1974)	and the state of t	
16	branki majorilari mas			
17	Service and the service	Storiem and the stories		
18	TOTAL CANADA SAND	Anthre Sep		

2

Participant List

6 Minutes of Site Inspection on 27 April, 2017

Final Inspection for the Pilot Repair Works

on

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

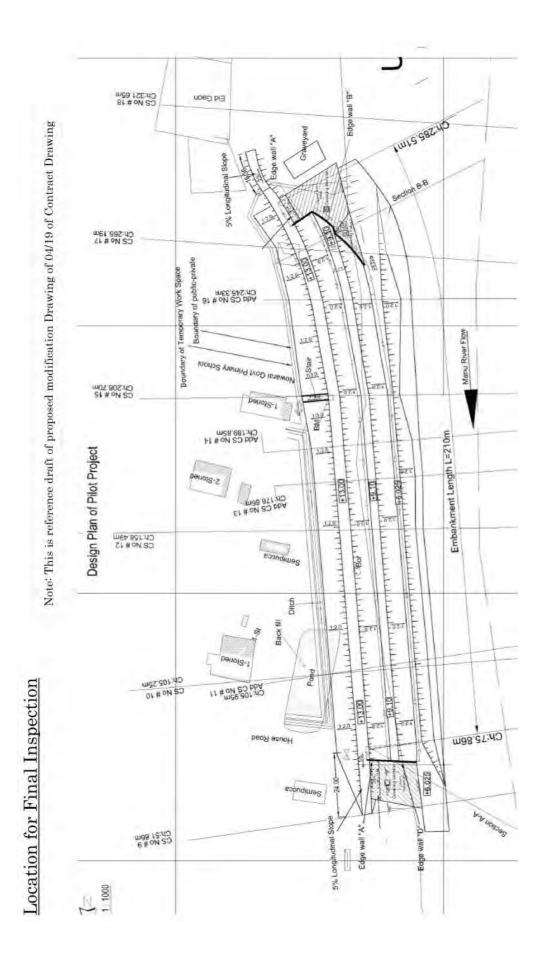
Date: May 20, 2017 Time: 14:00 – 17:00

Venue: Pilot Repair Work Site, Akhailkura Union, Sadar Upazilla, Moulvibazar District

& Conference Room, Hotel Rest Inn, Moulvibazar

AGENDA

TAGE I DE LA CASA DEL CASA DE LA						
07:00 – 13:00	Move to Pilot Repair Work Site (from Dhaka)					
14:00- 15:00	Session 1 in Field: Site Inspection					
	1) Investigation and checking workman-ship of the Works					
	2) Inspection and confirmation of completion of the Works					
15:00 – 15:30	Move from the site to Hotel Rest Inn (All participants)					
15:30 – 17:00	Session 2: Discussion of the Works upon completion					
	Presiding by Director, Planing-1, BWDB, Project Coordinator of the Project					
	1. Briefly explanation of the construction progress for the Works with showing					
	Photos by Project Manager of the Works, JICA Expert Team (10min)					
	2. Discussion for Final Inspection and the Works					
	1) Repair Pilot Works (PRW)					
	2) Learnings/studies and suggestions/advices from PRW, for further BWDB					
	works					
	3. Others					
	1) Records of learning are described in the proposed "Construction Manuals					
	(Revision)" of Capacity Development Project					
	2) Subsequent process; issuance "Competed Certificate", "Taking Over					
	Document" and others					
	4. Closing Remarks by Superintending Engineer, Design Circle-II, BWDB					
	5. Address from PE, Representative of JICA Bangladesh Office					
	6. Thanks given by Superintending Engineer, Moulvibazar O&M Circle					
17:00 –	Adjourn					



202,70 9,280 Drawing No.: MOU/JICA/EMB/1301 Sheet No.: 06 of 19 Design of Pilot Repair Works of Manu River Flood Centrol Embankment BANGLADESH WATER DEVELOPMENT BOARD (BWDB) Design Cross-Sectional Profile of Section No. 10 The Project for Capacity Development of Management for Sustainable Water Related infrastructure Consultants: JICA Expert Team 07.661 058.7 07.881 in Moulvibazar District Boundary of public-private Ditch (Bottom Level 8.6 m-PWD) 9.10 m(PWD) 097.8 07.881 -Detail "F" 6.230 07.061 Compacted Earth Filling - Design Embankment (Slope 1:2) Date: 28.05.2015 6.320 07.781 Construction Embankment Turfing 069.9 07.481 CHIEF ENGINEER, DESIGN Md.Jahangir kabir, CE CHIEF ENGINEER, DESIC 7.80 8.210 07.181 BANGLADESH WATER DEVELOPMENT BOARD (BWDB) Delpha 0616 07.871 Md. Harun ur Rasheed, SE 13.51 m(PWD) (13.00 m(PWD) BANGLADESH WATER DEVELOPMENT BOARD (BWDB) NOTE LIEXTENSION OF GEOTEXTILE. HAS BEEN INCLUDED AS SHOWN IN THE DRAWING. 2. ORIGINAL EARTH OF EMBANKMENT WITH IN DESIGN SECTION SHALL REMAIN. GEOTEXTILE SHALL BE EXTENDED UP TO THIS POINT 9 095.01 07.271 Carticuling Existing Ground Leve Cross Section No# DESIGN CIRCLE -Yasmin Begum, EE 054.11 172.70 DESIGN CIRCLE -▼ 5.40 m(PWD) Detail "A" 046.11 08.031 486.11 08.031 DHWL = 11.65 m/PWD CC Block 400x400x200 £6.78r - Detail "C" Gunnybag 50kg and cement mix=10:1/ 8:1, Sand FM >= 1.00) Mahid-Al-Hassan, AE Compacted Earth Filling HABILA SUMAIA 071,8 75.881 Checked by 9.50 m(PWC J. Called Sans CHECKED BY: -2.05-4.290 09.491 Detail "D" 066 6 08.681 162.50 3.790 SUTARUSARANAKA YOSUKE USUI CONSTRUCTION-I DEPUTY TEAM LEADER 067.6 08.181 OHEOKEO BY: Checked by JICA EXPERT TEAM (Sand 90.9 019.6 03.031 JICA Expert Team 029.60 3.520 Cast-in-Situ Concrete (1:3:6) Projected CC Block 400x400x200 100 mm thick 1st class Brick chips between C.C. Block and Geo-textile 100mm Sand (FM 1.0 - 1.50) 3mm thick Geo-textile 054.6 03.831 HUTANAKA. 036.6 08.781 Construction-I -207-ME PARED BY Prepared by : 1.60 156.50 3.260 081.6 03.881 Detail "E" .025 m(PWD) 154.50 3.080 4.67 1. Scale: 1 : 170
2. All Dimensions are in mand Elevations in mPWO.
3. For General Notes Roller to Chawing No.: 01
4. For Deals Refer to Drawing No.: 01
5. Under DLW. of embandment is filled by gumy/bags with sand. 151.70 2.990 700 mm Thick Assorted CCBlock 400x400x400 (60%) 300x300x300 (40%) Design Low Water ▼ Level = 4.49 m(PWD) -2.84 -3.00 148.70 2.990 -02'0 2,980 04.341 Existing RL in m-PWD Distance from LB in m 9.0 13.0 7.0 5.0 3.0 15.0 11.0 Datum Line Elevation(mPWD)

Typical Cross Section of Final Inspection

- 1. Outline of the Works
- 1) Commencement date: 25 November, 2015 Intended Completion Date: 30 May, 2017
- 2) Contract value; Taka 65,110,614.96.-
- 3) Main work quantities are shown below table

Table Main work item of Pilot Repair Works

	Work item	Quantity of works					
Type of		unit	Original	Amended	Work done	Remark	
work			Design	Design	Final		
Length	Proposed length of embankment (on crest)	m	210	200	Measurement 200+ Up/s 10m Down/s23m	Suite to site condition, but add covering transition 33m	
Earth	Cutting and excavation	m3	7,600	4,957	4,957		
work	Filling/embankment	m3	17,682	15,697	15,727		
Toe	Dumping CC-block 40*40*40cm	Each	16,998	ditto	16,990		
Protection	Dumping CC-block 30*30*30cm	Each	26,861	ditto	26,851		
	Sand cement (10:1) gunny bag foundation	No.	44,035	100	100	According to Trial Fabrication. (Work Shop_ Jan2016	
	Sand cement (8:1) gunny bag foundation	No.	66,053	110,088	111,210		
	CC-block 40*40*20 with	Each	21,284	ditto	18,555		
Slope	projection part, 1:2:4 concrete					Add transition	
Protection	mix					area covering	
	CC-block 40*40*20 plain,	Each	6,521	ditto	10,630	(Variation-6)	
	1:3:6 concrete mix						
	Geo-texitle sheet for Slope Protection, t=3mm	Sqm	4,940	6,084	6,248	Variation No.4 & No.6 (Transition area)	

Minutes of Final Inspection

Name of the Works: Pilot Repair Works of Manu River Flood Control Embankment in Moulvibazar District (JICA Contract Agreement No.: JICA (BD) 11-12001) (PRW)

Session1. Site Inspection

Date:

14:30-15:30, 20th May, 2017

Place:

The Site at Noarai, Akhailkura, Moulvibazar

Session2. Explanation and Discussion

Date:

16:00 - 17:30, 20th May, 2017

Place:

Meeting room of Hotel Rest Inn, Moulvibazar

I. Attendance and Icons (abbreviations) for each party

- 1) Attendance is referred to attendance list (Attachment #1).
- 2) Icons or abbreviations used in this Inspection are as follows, unless otherwise specified;
- JICA: Procuring Entity, Japan International Cooperation Agency Bangladesh Office Representative of Office in charge of the Project and local officer
- JET: Team Leader of the Project, Project Manager (PM), Senior Expert of JET and Deputy Project Manager (DPM) entrusted or appointed by JICA [JET: JICA Expert Team]

TSS: the Contractor, T.S.S. (JV)

BWDB: Director of Planing-1 BWDB and Project Coordinator of the Project (PC), Superintending Engineer (SE) of Design Circle (DC) 2, BWDB, Superintending Engineer (SE), Moulvibazar O&M Circle, Executive Engineer (Xen) Civil, Sub-Divisional Engineer (SDE), Sectional Officer (SO) and other officers from BWDB, Moulvibazar O&M Division Office, BWDB

II. Site Inspection (Session 1)

- Remedial works and re-compaction works were inspected at the site where for the crack found on the last joint site inspection on 27 April 2017. As a result, it is found already repaired and in good condition.
- Backfilling of the small ditch at the toe of country side slope has not been completed. It is instructed to be completed by 23rd May 2017.
- There is some settled portion of the shoulder of the crest in riverside of around 5 meter long at near Cross Section No.16. Such part is to be re-constructed and repaired properly.
- 4. The Work can be declared substantially completed subject to completion of the filling of ditches, stated in bullet 2 above, and to be carried out remedial works for some settled part, stated in bullet 3.above.

Minutes of Final Inspection on 20 May 2017

- 5. A warning notice board should be erected to refrain boats or other motor vessels form anchoring at the vicinity of the pilot repair works. Moreover, a large signboard is to be established informing the details of the completed pilot repair works. The prescribed format of Publicity Cell, BWDB should be followed while establishing the information board and furnishing necessary information.
- The handouts should have the as-built drawing in place of the previously planned drawing to avoid confusion relating to drop of earthen drain at the C/S toe of embankment.

III. Discussion on the completion of the Works (Session-2)

The discussion meeting started around 4 pm, Mr. Fazlur Rashid, Director Planning-I and Project Coordinator presided over the meeting.

1. Explanation of construction progress

Brief explanation of the construction progress for the Works with showing Photographs by Project Manager (PM) of the Works, JICA Expert Team

- Using Power Point Slides and referring handout copies of slides, PM explained overall progress of the Works, especially the delay of the Works due to inclement weather and others
- 2) Recorded photographs are presented for some activities, such as Trial Fabrication of sand-cement mortar gunny bags, Trial Compaction for embankment works, Safety Gathering as Capacity Building events and also Temporary Prevention works for the slope during suspension period of works in the rainy season of 2016.
- Construction Manual (Revision) version-2 are also introduced and some of articles of the Manual were referred to the studies and learning from this Pilot Repair Works.
- The works done are quite satisfactory.
- 2. Discussion
- SE DC2 comments are followings;
- The entire work was done following the step-by-step administrative procedures. It should be practiced during implementation of other projects by BWDB.
- 2) When planning the schedule analyzing the previous year's hydrological data is essential.
- Manuals, such as Construction Manuals Hard copies, is to be delivered to all BWDB O&M Division Offices

- Representative of JICA BD commented as follows;
- It is a pleasure to know that the Pilot Works is almost complete and after Taking Over from JICA to BWDB, JICA Bangladesh Office would like to request BWDB O&M Moulvibazar Division Office to take care the Pilot Site.
- In the Project, making Manuals, for design, construction and O&M are almost completed and those Manuals are being disseminated. It is desired for BWDB to utilize these Manuals effectively.
- Director of Planning 1, BWDB comments;
- We have many places where we need to do, improvement works. JICA are requested to assist further project not only river embankment works, but also water resource project.
- He extended thanks not only to BWDB staff but also to local & foreign JET members contributing much for this Project.
- 3) The Work may be declared Completed on 23rd May 2017 after the remedial measures taken for minor repair and settled portion and filling of some small ditches (pooling area).
- 4) The works done, especially turfing works are very nice.
- 5) JICA and BWDB will devise scopes in favor of preparing GIS data base for all BWDB structures in Bangladesh. Both the parties would share their collected information, compile together, prepare combined GIS data base and explore the possibilities to establish a permanent GIS Cell at the BWDB HQ. Extended discussion would be held under the chairmanship of the Chief Planning, BWDB, Dhaka.
- Executive Engineer, O&M Moulvibazar Division Office, BWDB's thanks giving and remarks;
- Thanking JICA BD and JET members and the Contractor (TSS JV) completing the Works. It show different type, challenging works, such as introduction of placing CC- block with off-set (projection part) and other events.
- Actual Completion Date of Works

After discussion regarding Actual Completion Date, finally all member of Final Inspection concluded as follows;

- 1) The Works is not yet completed by Today (20 May 2017)
- 2) After finishing i) filling water pooling places near toe of country side slope and ii) repair works for sinking part at some shoulder of riverside slope at the crest (stating the Site Inspection), the Works will be deemed as "Completed" on 23 May 2017.
- TSS (JV) shall carry out such outstanding works and report to BWDB and Supervising Team, with recoding photos.

Minutes of Final Inspection on 20 May 2017

The meeting ended thanks from the Chair.

(Faziur Rashid)

Director, Planning-I, BWDB and Project Coordinator of the Project Jan 10.05.17

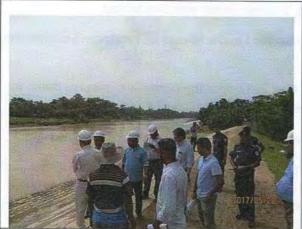
(Md. Harunur Rasheed)

Superintending Engineer, Design Circle-II, BWDB 小泉常二

(Johji Koizumi)

The Project Manager of the Pilot Repair Works, A member of JICA Expert Team

Photos of Final Inspection



Ph1. Site Inspection by Director Plaining-1, SE DC2 and Moulvibazar BWDB, JICA and Supervising Team on 20 May 2017



Ph2. Pointing out some sinking part at the embankment crest at around C/S No.16 on Site Inspection



Ph3. On final inspection day (20170520) visiting team on the completed work.



Ph4. Session 2: Discussion for Final Inspection and CDMSWRI Project at Rest In Hotel on 20 May 2017



Ph5. Carried out outstanding filling work for water pooling area near toe of country side slope on 21 May 2017



Ph6. SO of BWDB and PM inspect the repairing work for the sinking portion on the crest of bank. On 21 May 2017



Ph7. Carry & dumping/filling earth to water pooling area near toe of country side slope on 21 May 2017



Ph8. Re-compacting the crest at the sinking portion on the crest of bank. On 22 May 2017



Ph9, Filling earth to water pooling area has been completed by 22 May. Taken on 22 May 2017



Ph8. Re-compacting the crest at the sinking portion on the crest of bank and the repair work has been completed by 22 May 2017

Minutes of Final Inspection on 20 May 2017

Attachment # 1: Agenda of Final Inspection on 20 May 2017

#2: Attendance List of Final Inspection on 20 May 2017

Participant List for

The Workshop for Final Inspection for the Pilot Repair Works of Manu River at Moulvibazar

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: May 20, 2017

Time: 14:00 pm - 17:30 pm

Venue: Worksite & Conference Room, 2nd Floor, Rest Inn Hotel, Moulvibazar

No	Name	Title/Organization	Phone No Email Address	Signature
1	Ma. Harry Y Rasherd	Bugintending Buginen DesegnCirch-2 BNDB		
2	Fazlux Rashid	Director, Planning-1, BWDB, Dhaka		
3	S.M.SHAHIDUL 152AM	Superintending Engineer, Moderibasnofing		
4	Bejoy Indra sanker Chakrabonty	Executive Engineer Montvilezan OBM pivision		
5	Md. Rohat Khan	SIEA,	· -	
6	Md. Khalid bin olid	Sub-divisional Engineer (Are) BWDB, Mondribazar		
7	Nd. Abdol Kaden	Sectional officers. Rémagor or M section-2. BCVDB, Moulvibazor.		
8	MD. SAKIB HOSSAIN	Sectional officer Moulvibazon 08 M Section - B, BWDB, Moulvibazon		

No	Name	Title/Organization	Phone No Email Address	Signature
9	Md. Hasan Parves Riadh	Sectional Officer. Moulvibuzar OSM Section BLODB, Moulvibuzar.		
10	Md. Shahadat hossain	sectional officer Moulvibarar 0919 Section - 9 By.db. Moulvibarar		
11	TANDIR SAIF AHMED	BWOB		
12	Md. Mainul Islam	DPM-PRW CDMSWRI		
13	Ahmed Sodi Morhinddin	TSS's SE		
14	Liton Roy	TSS's PM		
15	Md. Johirul Harue	TSS (IV)		
16	Koichi Kitaming	JICA		
17	Johji KOTEUHİ			
18	Hasan Zubair	JICA, Expirt		

No	Name	Title/Organization	Phone No Email Address	Signature
19	Yosuke Usui	JICA Expert Team		
20	Muntasin Ibn Mohsin	Administrator JICA Study Team PCDMSWRI		
21		2,00,81		
22				
23				
24) -			
25				
26				
27				

Minutes of the Workshop on the Project for "Capacity Development of Management for Sustainable Water Related Infrastructure" regarding dissemination of manuals and action plan held on 13th July 2017 in BWDB Conference Room, 3rd Floor, WAPDA Building, Motijheel C/A, Dhaka-1229.

A workshop was held for the dissemination of Design Manual (Prepared by JICA Experts & approved by BWDB), O&M Manual (Prepared by JICA Experts & approved by BWDB), & Construction Manual (Prepared by JICA Experts & under review and process of approved by BWDB) on 13th July 2017 in BWDB Conference room, 3rd Floor, WAPDA Building.

The Workshop was conducted in 5 (Five) sessions as described below. The program and participant list in the workshop is attached in Annex-1 and Annex-2 respectively.

Opening Session: Mr. Md. Mahfuzur Rahman, Director General, BWDB chaired the session. The sessionstarted with recitation from the Holy Quran. Mr. Md. Abdur Rahman Akhanda, Aditional Director General (Planning), BWDB, Dhaka said in his opening speech that the prepared and approved manuals would be disseminated and discussed in details. If any issue would be raised, then it could be accordingly accommodated in the manuals. Then he hoped that the workshop would be fruitful and useful for BWDB practitioners.

Mr. Hitoshi Ara, Senior Representative, JICA Bangladesh Office said that the Manual had been prepared in the updated form. He expressed necessity to apply this manual in to the real field and practice for further improvement. The prepared Action Plan for dissemination had been prepared. He requested BWDB to impart appropriate importance in dealing with the manuals. He told that the manuals would be disseminated to the BWDB offices and requested concerned persons to practice the manuals in the field level.

Mr. Yosuke USUI, Team Leader of the JICA Expert Team described the outline of the project, its activities, objective of the manual & action plan in short. He said that the Project started in August 2013 and will be completed in October, 2017. The overall goal of the project was to achieve water related risk reduction through proper management of water related infrastructure. The described that the manuals are of utmost importance and its dissemination and further practice would improve capacity of BWDB.

Mr. Md. Mahfuzur Rahman, Director General, BWDB, Dhaka expressed gratitude that for the last three years BWDB had been closely associated with this project. He expressed satisfaction on scheduled activities including investigation, exploration, preparation of manual, training, pilot works, GIS Database etc. accomplished under the Project. He hoped enriching BWDB's manpower with the disseminated knowledge through this workshop and offered accomplishment of the manuals with the suggestions if any. With the speech of the DG, BWDB, the session ended leading to a tea break.

Session 2: Presentation on Design Manual

Mr. Mohammad Shahabuddin, Chief, Training and Staff Development, BWDB, Dhaka chaired the session. The Design Manual was presented by Mr. Tatsuya Mochizuki, JICA Expert in Design. Mr. Mochizuki described the relation between 1995 Standard Design Manual of BWDB and this Manual. He also explained the application of Design Manual with 4 sections, e.g. Prerequisite concerning River Embankment Design, Basic of Embankment Design, design specifications and Verification of Embankment safety. He also briefed the points considered in Design Manual presentation. Then he explained the text book for correct understanding of the river embankment for junior engineers. Embankment failure & counter measures, earthquake phenomenon, relation between dry density and water content ratio, use of projected block in slope protection up to high water level & failure phenomenon in Khulna & Moulvibazar were described as well.

The Chairman of the session then opened the floor for discussion.

Mr. Md. Harunur Rasheed, Superintending Engineer, Design Circle-2, BWDB, Dhaka pointed out that text book for understanding of River Embankment would be useful for BWDB with content of good information. Dr. Shamal Chandra Das, Executive Engineer, Office of the Chief Planning, BWDB, Dhaka opined that compaction would be very important. He intensified on ensuring proper compaction while implementing embankment works. Mr. Tatsuya Mochizuki, JICA Expert (Design) told that BWDB needs to achieve desired compaction using proper equipments and compaction procedures.

Mr. Md. Sajidur Rahman Sarder, Chief Engineer, Southern Zone, BWDB, Barisal asked ways to ensure the stability of embankment made of dredged fill sand against seepage. Mr. Mochizuki suggested providing good clay cover over the embankment for that purpose. Also proper vegetation cover with good turf on the clay should be given, he suggested. Any crack on the surface of slope should be repaired with appropriate materials, he added.

Mr. Fazlur Rashid, Director, Planning-1, BWDB, Dhaka mentioned that in the text book of understanding embankments, provision of extra banking height had been considered. If the

total filling height of the embankment including the extra banking height for subsidence/ settlement was considered, then whether we would have to provide extra banking height again or not. Mr. Mochizuki made clarification that BWDB engineers should have to check the height. If the total height would be equal to the height including the extra banking height then the design should be OK. If not, for any reason, the designers should provide extra banking height as required.

Mr. K. M. Humayun Kabir, Additional Chief Engineer & Project Director, Capital Dredging of River System in Bangladesh said that slope protection by block is suitable for coastal zone & for flashy rivers. But in case of North-western and Central Zone of BWDB, blocks along the river side might enhance the surcharge load and might threaten to safety. Mr. Md. Harunur Rasheed, Superintending Engineer, Design Circle-2, BWDB, Dhaka replied that placing of block at 1:2 or 1:3 slope should not be critical against stability in the mentioned zone along major rivers. Mr. Kazumitsu Muraoka, JICA Expert to BWDB said that sediment deposition on the river bed is an important factor with respect to the stability of the river embankment.

Chairman of the session thanked everybody for lively discussion and hope that the Design Manual would be helpful for BWDB in designing the infrastructures.

Session 3: Presentation on Construction Manual

Mr. Johji Koizumi, JICA Expert (Construction) & PM of Pilot Repair Work presented the Construction Manual (revised) by power point based on the activities done in the Pilot Repair Works at Moulvibazar. He explained the objective of construction manual. He mentioned that the manual was supplemented to the TS (Technical Specification) of BWDB and standard schedule of rates with special emphasis on detail of quality control methods and tests, construction planning including progress control and safety control measures.

He described about the trial mix of sand cement mortar and concluded that 8:1 proportion was found better. He described about compaction of layers would be of 20 cm to 30 cm by plate compactor and Bulldozer as had been practiced and done in the Pilot Repair Works. He also spoke about the temporary protection measures taken to protect the area of Pilot Work for flood during 2016 as the work could not be completed in time within May, 2016 due to early rain and adverse weather condition. He recommended for proper planning and scheduling of work execution taken consideration of the weather.

Chairman of the session then opened the floor for discussion.

Mr. Md. Harunur Rasheed, Superintending Engineer, Design Circle-2, BWDB, Dhaka asked the best ratio of Sand Cement mortar bag and the thickness of Sand Cement Bag. Mr. Koizumi replied in favor of 8:1 proportion. However, if enough time for manufacturing and curing was found, then 10:1 ratio would also do. He told that the thickness of sand cement bag was not determined. However he said that the mixture could be easily used.

Mr. K. M. Humayun Kabir, Additional Chief Engineer & Project Director, Capital Dredging of River System in Bangladesh expressed his concern that the cost would be higher compared to BWDB's existing cost for such work. Mr. Yosuke Usui, Team Leader, JICA Expert Team replied that BWDB has to build the embankment just on the bank of the river and protection work with sand cement bag morter, toe wall, projected block etc. That is why the cost would be a bit higher. However, at locations with sufficient set-back distance for the embankment, then cost could be minimized. Mr. K. M. Humayun Kabir, Additional Chief Engineer & Project Director, Capital Dredging of River System in Bangladesh also requested JICA to undertake such Pilot Work along Jamuna & Padma rivers.

Mr. Md. Amirul Hossain, Director, Planning-3, BWDB, Dhaka wanted to know about the similar Project to be taken by JICA. Mr. Muraoka replied that JICA was working out scopes for the next collaboration initiatives.

Mr. Md. Sajidur Rahman Sarder, Chief Engineer, Southern Zone, BWDB, Barisal wanted to know about the allowable velocity which could be tolerated by earthen embankment without protection. Mr. Md. Harunur Rasheed replied that it is 1m/sec for well turfed embankment. Mr. Yosuke Usui told that as per Japanese experience it is 2m/sec with good quality soil and good turf.

Chairman of the session concluded that the Construction manual would be very useful for improving the quality of BWDB infrastructure in future.

Session 4: Presentation on O&M Manual

Mr. Yosuke Usui, Team Leader, JICA presented the O&M Manual. He mentioned that the O&M Manual had been prepared as per Government Approved O&M guide line 2010. He told about the 4 pillars of O&M i.e. Basic Scheme Data, Budget, Planning and Monitoring. He spoke about different kinds of maintenance, importance of patrol and inspection,

beneficiary participation/ peoples' participation, flood fighting procedures, O&M planning, budgeting, motivation of people & authorities for active participation in O&M and placing proper budget for O&M.

Chairman of the session then opened the floor for discussion.

Mr. Amirul Hossain, Director, Planing-3, BWDB, Dhaka suggested that in the maintenance list of structure in page 05 of the manual inlet, outlet etc. might be added. He also suggested adding the words at page-4 of the manual.

-"Operation of structures is carried out to maintain desired or planned quantity and quality of water inside the Project"

-"Maintenance of infrastructure is carried out to maintain the structures in good operation condition. Maintenance can ensure easy and timely operation of infrastructure"

The word beneficiary participation could be replaced by people participation, he suggested.

Mr. S. M. Shahidul Islam, Superintending Engineer, Moulvibazar O & M Circle, BWDB, Moulvibazar told that budget would be main problem. Even the O&M budget indicated in the DPP was not provided all the time. So budget for O&M should be increased, he opined.

Mr. Usui put importance on sufficient budget and requested BWDB to place demand to the authority with sufficient inventory data and justification to convince GoB to place adequate fund. Mr. Kazumitsu Muraoka said that in Japan also Govt. does not place sufficient fund if proper justification and inventory data is not furnished. So making a good inventory database is a must. Mr. Koichi Kitamura from JICA Bangladesh Office said that for this data base JICA could help if requested by Government of Bangladesh & BWDB.

Mr. Md. Harunur Rasheed said that in the manual it was mentioned that BWDB supervising staff could not inspect even once in a month. This was due to shortage of fund and logistic support. So these things should be given in plenty. BWDB should also fix up the priorities properly.

Chairman of the session thanked Mr. Usui for good presentation and also praised the participant for lively discussion. He told that BWDB should follow the 4 pillars of O&M in the real sense and stick to participatory approach of operation.



Session 5: Presentation of Action Plan

Mr. Yosuke Usui, Team Leader presented the action plan for dissemination of manuals.

He mentioned about the present condition of embankment and desired future of embankment, slope/application and target user of Manuals, challenges of application of manuals, Road map on Action plan for Dissemination & Effective use of Manuals, Implementation of Action plan, Basic Strength of Action Plan and implementation Structure of Action Plan. He also requested the chairman of the session to include these things in the training session of BWDB. Then the floor was opened for discussion.

Mr. Amirul Hossain, Director, Planning-3, BWDB, Dhaka commented that BWDB had lack of equipment and logistic support also. So these should be mentioned with the lack of budget. He stressed on establishment of GIS cell in BWDB. Mr. Koichi Kitamura & Mr. Kazumitsu Muraoka told that in this respect JICA would help BWDB if requested with technical assistance & fund. At this stage DG, BWDB again joined the workshop.

Mr. Md. Harunur Rasheed asked that whether budget for dissemination would be provided by JICA or BWDB. Mr. Usui replied that is would be form BWDB budget.

Mr. Koichi Kitamura from JICA Bangladesh office took the floor and expressed his happiness as everybody was present till the end and initial dissemination had been done. He requested to apply manuals in a proactive approach. He suggested to customize the manuals with acquired knowledge. He hoped all the best for all of the participants, BWDB, JICA and the JICA Expert Consultants.

Mr. Fazlur Rashid, Director, Planning-1, BWDB, Dhaka thanked everybody for patient hearing and lively participation. The workshop ended with vote of thanks for the Chair.

(Md. Mahfuzur Rahman) Director General

20.07.2017

Bangladesh Water Development Board.

Annexture-1

Seminar on Prepared Manuals

Date: July 13, 2017 Time: 09:00-15:20 Venue: Conference Room, the 3^{rd} Floor, WAPDA Building, Motijheel, BWDB

AGENDA

O9:00 – 10:00
Recitation from the Holy Quran
Opening Remarks by ADG, Planning, BWDB (5 min) Remarks by JICA Bangladesh Office (5 min) Objective of Manuals and the Seminar by JICA Expert Team (5 min) Remarks by DG (10 min) 10:00 – 10:15 Tea/Coffee Break 10:15 – 11:45 (90min) Chair: ADG, Planning, BWDB Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Remarks by JICA Bangladesh Office (5 min) Objective of Manuals and the Seminar by JICA Expert Team (5 min) Remarks by DG (10 min) 10:00 – 10:15 Tea/Coffee Break 10:15 – 11:45 (90min) Chair: ADG, Planning, BWDB Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Chair: ADG, West, BWDB Outline of Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Objective of Manuals and the Seminar by JICA Expert Team (5 min) Remarks by DG (10 min) 10:00 – 10:15 Tea/Coffee Break 10:15 – 11:45 (90min) Chair: ADG, Planning, BWDB Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Objective of Manuals and the Seminar by JICA Expert Team (5 min) Remarks by DG (10 min) 10:00 – 10:15 Tea/Coffee Break 10:15 – 11:45 (90min) Chair: ADG, Planning, BWDB Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Remarks by DG (10 min) 10:00 – 10:15 Tea/Coffee Break 10:15 – 11:45 Session 2: Design Manual for River Embankment (90min) Chair: ADG, Planning, BWDB Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 Session 3: Construction Manual for River Embankment (60 min) Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
10:00 – 10:15 Tea/Coffee Break 10:15 – 11:45 (90min) Chair: ADG, Planning, BWDB Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
(90min) Chair: ADG, Planning, BWDB Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Outline of Design Manual (60 min) Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Speaker: Mr. Tatsuya Mochizuki, Expert for Design, JICA Expert Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Team Q& A, Discussion (20 min) Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Remarks by Chairman of Session 2 11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
11:45 – 12:45 (60 min) Session 3: Construction Manual for River Embankment Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Chair: ADG, West, BWDB Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Outline of Construction Manual (45 min) Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Speaker: Mr. Johji Koizumi, Expert for Construction, JICA Expert Team Q& A, Discussion (15 min)
Team Q& A, Discussion (15 min)
Q& A, Discussion (15 min)
12:45 – 13:45 Lunch Break & Prayer
13:45 – 15:00 Session 4: O&M Manual
(75 min) Chair: ADG, East, BWDB
Outline of O&M Manual (60 min)
Speaker: Mr. Yosuke Usui, Team Leader/ Expert for River
Management, JICA Expert Team
Q & A, Discussion (15 min)
Remarks by Chairman of Session 2
15:00 – 15:30 Session 5: Action Plan for Dissemination and Effective Use of Manual
(30min) Chair: Chief Planning, BWDB
Outline of Action Plan (20 min)
Speaker: Mr. Yosuke Usui, Team Leader/ Expert for River
Management, JICA Expert Team
Q& A, Discussion (10 min)
Remarks by Chairman of Session 2
15:30 – 15:50 Session 5: Closing Session
(20 min) Closing Remarks by Chief Planning, BWDB
Thanks Giving by Director, Planning-1

Participant List for Seminar on Prepared Manuals

The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

Date: July 13, 2017

Time: 09:30 am - 16:30 pm

Venue: Conference Room, 3rd Floor, WAPDA Building, Motijheel, BWDB

No	Name	Title/Organization	Phone No Email Address	Signature
b	Md. Mah fizer Rohman	DG, BWDB		
2.	Md. Abdur Rehman Axhanelg	ADG(P), BWBD		
3,	Md. Mosaddague Hossie	ADG(OR) MODS		
4.	Mohammad Ali	C.E. Rayohahi, BWDB.		
5,	Mohamad Shehalmdh	Staff Der.		
6	1. M. Aminul Hague	CP, BWOB		
7	Sacala Nazheen	Chief Erginer Design, BWDD		
3.	Md. Sajidur Ruhman Saveler	Chief Engineer Southern Zone, Bari'sal		

No	Name	Title/Organization	Phone No Email Address	Signature
9	Mohammad Afi	Add. edicf hydrou BODB, Fasidpus		
10	Fazlur Rashid	Pirector, Planning-1, BWDB		
11	Md. Enayet Ullah.	Executive Engineer. Planning-1 Buids.		
2	YASMIN BEGUM	S.E. DESIGN.I		
3	Md Fathoul Abedi	Addl-chief-Engr		
4	K M HUMAYUN KABIR	Addl. Chieb Engr. Capital (Polot Drodging)		
5.	Dr. Shamal Oh. Das	Executive Engr. Office of This of P BWD13		
6	Md. Abul Kausar	Superintending Enginer. DISISN eivell - 4 BNDB, DKAKA.		
7	md. Aminul Honnain	Pinector, Pl-3 Broycet Director Blue Gold, BWPB		
8	Md. Abdus Salam	Director 02 M Dte. BWOB. Draka		

Appendix-7.8
Annexure-2

No	Name	Title/Organization	Phone No Email Address	Signature
19	Md. Anif Hossen	SDE, BWDB (Design cincle-1)	1175	= +47
20,	Poly Das	SDE, Design Grecle-2 BLODB		
21	Hasnin Faterna Kanon	SDE, Design Gircle 2 BWDB, DhaKa.		
<i>12.</i>	Saida Afrose	SDE. Design Cincle-2 BWDB, Dhaka.		
23.	Asif Hahmud	AE, Design-02, BWDB, Dhaka		
24.	Saffal Ana Sayeed	AF, Planning-2 BWDB, Dhaka		
25	Abdur Rahman Tazkia	AE, plunning-1 134 dts, Dhata		
24	Md. Atique Islam	AB, Planning-1 BWDB Dlaha		
5.	Md. Sozwaz-Johan	SDE, Directorate of OKM BWDB, Dhuka		
6.	Tasnia Hogen	AE, Planning-1 BWDB, Dhaka		

No	Name	Title/Organization	Phone No Email Address	Signature
27	Nusaeir Hossain	A.E., Design-06 BWDB, Dhaka.		
28	MD. Nahinur Rahman	AE, Directorate of Staff Development, BWDB, Dhaka		
29	Md. Atalus Sattar	Superintending Engr. Design Circles BNDB, DRAKO.		
30	MD. SHAHINUR. RAHMAN	Sub-Divisional Engineer; Planning-3. BWDB.		
31	AFM Taulid Jamen	Sub-Divisional Engineer, ECRRP, BWDB		
32	Md. Jannætun Mein	AE, Dinectorate of Project Evaluetion,		
33	Md. Kawsan Sankan	AE, planning-3 BWDB. Phaka		
34	Sourar Kuman Dass	AE, office of the Chief Monitoring		
35	Nasreen Islam Hulth	AE, planning_1		
36	Nahid Nauaz.	AE, Planning -2 BWDB, Dhaka.		

No	Name	Title/Organization	Phone No Email Address	Signature
37	Hroshi ARA	Senior Reprosentation TICA Barderlah OSFree		- "" 3)
38	Korchi Kitamura	Representative JICA BD Office		
39	Kazumitsu Muraoka	JICA Expert to the BWDB		
40	Tatsvya Mochizuki	JI CA expert		
41	Yosuke Usui	"		
12	Johji KOIZUMI	JICA Expert Team, PM of Polit Repair Worz		
13	Hasan Lubait	JICA Local Senior Export		
4		Superintending Engr. moulibasan		
15	Rasherd	Engr. Design Circle-2 BNDB, Dhake		
16	M. A. Basel	SE, CE ODA		

No	Alberta Control of the Control of th	Title/Organization	Phone No Email Address	Signature
47	MUSA NURUR RAHMAN	SE, DESIGN-6 BWDB		
48	AKH Tahmidul	Director, planning 2		
49	Mt Ragique Alam	Superintending Engineer Director, CPC, BWDB DRaka.		
Do	Gowlan Bisway	SDE. Design circle-4 BWDB. Gren Rord. Dhana.		
51	Munshi Amin Faysal	SDE, Design Clocke-6 BWDB, Dlaka.		
52	Mirza Asiful Islam	AE Design Circle-2, BWDB, Dhaka.		
53	Md. Abaul modex	SDE, Design anders BWDB, Phaka		
54	Md. Marsum Billarh	SDE, Derign cinde-5 BWDB, Dhumu		
55	M. Nazmul Islam	SDE, Dtc. of Planing -I, BWDB, Dlake		
56	A.K. Manzur Hasan	ACE/Hydrology		

Appendix-7.8
Annexure-2

No	Name	Title/Organization	Phone No Email Address	Signature
57	Md. Abdullah Al Amin	XEN, BWBB		Yes X
58	MD RADIB HOSSAIN	SDE DP.1 BWDB	marger?	
59	1. K.M. Wahed uddni Chowoly	ACB, BWDB Khulna		
60	Md. Abdur Raghid	D.D, BWDB		
· · · .				

Appendix-8: Program Orientation (Program and Participants) on Counterpart Training on River Management in Japan

Appendix-8.1: Training in Japan, 2014 Appendix-8.2: Training in Japan, 2015

Training Schedule

Training course : The Project for Capacity Development of Management for Sustainable Water Related Infrastructure

 Training course
 J1421982

 Training period
 2014/10/19
 2014/11/1
 Number of participants
 12

Date		Time Type		Ourtuit	Lecturer/Instructor		Langu	Vanus	Accommodation	
		Time	туре	Contents	Name Company Agency Name		age	Venue	Accommodation	
10/19	Sun	~		Arrival					Akihabara Washington Hotel	
		9:30 10:00		Program Orientation	O. Nakazawa	IDEA Consultants, Inc. Overseas Division	Е	JICATokyo		
10/20 N	M	10:00 ~ 12:30		Briefing	O. Nakazawa	IDEA Consultants, Inc. Overseas Division	Е	JICATokyo	Akihabara Washington	
10/20	Mon	14:00 ~ 16:00	L	Japanese system for disaster	M.Hasegawa	Cabinet Office, under Director-General for Policy Planning, International disaster prevention cooperation expert	J	Cabinet Office	Hotel	
10/21	Tue	9:30 ~ 11:30	L	River Management of Japan	A. Shimasaki	Ministry of Land, Infrastructure and Transport, Water and Disaster Management Bureau,River plan section	J	MLIT	Akihabara Washington	
10/21	Tuc	13:30 ~ 15:30	L	Maintenance of Flood Control Facilities in Japan	N.Osanai	Ministry of Land, Infrastructure and Transport, Water and Disaster Management Bureau, River maintenance planning office	J	WEI!	Hotel	
10/22	Wed	10:00 ~ 12:00	L	Project Outline of Japan Water Agency (JWA)	H.Noguchi	JWA,Comprehensive Technology Center, international group	Е	JWA HQ	Akihabara Washington Hotel	
10, 22		13:00 ~ 16:00	0	Visit to Tone Water-conveyance facilities	T.Kuroki	Tone Water-conveyance general office, Management section	J	JWA	Hotel	
10/23	Thu	10:00 ~ 12:00	L	River improvement measures in the Tonegawa basin	M.Okado	Ministry of Land, Infrastructure and Transport Kanto Regional Development Bureau, Tonegawa upper reaches river office	J	Upper Tone River Office, Kanto Regional Development Bureau, MLIT	Akihabara Washington	
10, 20		13:00 ~ 16:00	0	Tonegawa river structure visit	K.Nakajima	Ministry of Land, Infrastructure and Transport Kanto Regional Development Bureau, Tonegawa upper reaches river office	J	Disater Prevention Center and facilities	Hotel	
10/24	Fri	10:00 ~ 12:00	L	River improvement/flood control measures in Saitama	M.Okada	River and Erosion Control Division, Department of Land Development, Saitama Prefectural Government	J	Office of River and Erosion Control Division	Akihabara Washington Hotel	
		13:00 ~ 16:00	0	Flood management measureas (retarding basin, Koshigaya Lake town) in Saitama	M.Okada	River and Erosion Control Division, Department of Land Development, Saitama Prefectural Government	J	Retarding basins, etc.		
		9:00 ~ 12:00		Travel (by Shinkansen:Tokyo - Nagoya)						
10/25	Sat	13:30 ~ 15:30	0	Visit to experience-based disaster prevention learning facilities	T.Yoshimura	Nagoya Port Disaster Prevention Center	J	Nagoya Port Disaster Prevention Center	JICA Chubu	
10/26	Sun	10:00 ~ 12:00 ~		Document rearranging, self-study	O.Nakazawa	IDEA Consultants, Inc. overseas division	E	JICA Chubu	JICA Chubu	
		10:00 ~ 12:00		Document rearranging, self-study	O.Nakazawa	IDEA Consultants, Inc. overseas division	Е	Via Inn Hotel		
10/27	Mon	13:00 ~ 16:00	L/0	Lecture: River Improvement/Flood Control Measures of the Kiso River, the Nagara river and the Ibi River/visit to several on going construction sites	T.Murata	Lower Kiso River Office, Chubu Regional Development Bureau, MLIT	J	Several on on going construction sites, Lower Kiso River Office	Via Inn Hotel, Nagoya	
		10:00 ~ 12:00	0	Visit to Nagara River Estuary Barrage	K. Murao	Nagara River Estuary Barrage Operation & Maintenance Office, Japan Water Agency	J	Nagara River Estuary Barrage Operation & Maintenance Office and the barrage		
10/28	Tue	13:00 ~ 16:00	L/0	Visit to Nikko River construction site / lecture: measures against tsunami and storm surge in low-lying area in coastal area of Aichi prefecture	C. Kato/N. Furuhashi	Maintenance Group, Pumping Station Management Division, Kaifu Construction Office, Aichi Prefectural Government	J	Nikko River Branch Office, Aichi Kaifu Construction Office, Aichi Prefectural Government	Via Inn Hotel, Nagoya	
10/29	Wed	9:30 ~ 12:00	0	Visits (by ship) to the Nagoya port storm surge breakwater facilities improvement work site	M. Kuroyanagi/A. Jindou	Nagoya Port Office, Chubu Regional Development Bureau, MLIT/Nagoya Port Authority/Aichi Prefectural Government/Nagoya Port Management Union	J	Nagoya Port, Aichi Prefecture	Ochanomizu Hotel Juraku	
		13:30 ~ 16:30		Move(by Shinkansen:Nagoya - Tokyo)						
10/30	Thr	9:30 ~ 12:00	Р	Summarization of Training	O.Nakazawa	IDEA Consultants, Inc. overseas division	Е	Hotel Meeting Rm	Ochanomisu Hatal I	
10/30	Thu	13:30 ~ 16:00		Action plan preparations	O.Nakazawa	IDEA Consultants, Inc. overseas division	Е	Hotel Meeting Rm	Ochanomizu Hotel Juraku	
10 (01	F.	~		Action plan preparations	O.Nakazawa	IDEA Consultants, Inc. overseas division	Е	Hotel Meeting Rm		
10/31	Fri	~	Р	Action plan presentation, evaluation meeting, closing ceremony				Hotel Meeting Rm	Ochanomizu Hotel Juraku	
11/1	Sat	~		Departure						

L: Lecture O: Observation P: presentation

Training in Japan Course Title: River Management & Disaster Prevention Participants List

Period: 19 October 2014~1 November 2014

	Name	Position			
1	Mr. PRAMANIK Akm	Deputy Secretary, Economic			
	Aftab Hossain	Relations Division, Ministry of Finance			
2	Mr. HOSSAIN Kazi	Deputy Secretary, Development Wing,			
	Sakhawat	Ministry of Water Resources			
3	Mr. RASAL Abu Usuf	, , ,			
	Mohammad	Ministry of Water Resources			
4	Mr. KUNDU Jati Das	Chief Engineer (Design), Design			
		Department, BWDB			
5	Mr. AKHANDA Md. Abdur	Director, Directorate of Planning-1,			
	Rahman	(Project Coordinator), BWDB			
6	Mr. ABEDIN Md. Fakhrul	Superintending Engineer, Office of the			
		Chief Planning, BWDB			
7	Dr. DAS Shamal Chandra	Executive Engineer/Project Manager,			
		Office of the Chief Planning, (Project			
		Manager), BWDB			
8	Mr. KABIR K. M.	Director, Directorate of Processing,			
	Humayun	BWDB			
9	Mr. SIRAJ Mohammad	Executive Engineer, Office of the			
	Shajahan	Chief Planning, BWDB			
10	Mr. AHMED Golam	Deputy Chief, Planning, BWDB			
	Faruque				
11	Mr. KHAN Kamruzzaman	Sub-Divisional Engineer, Directorate			
		of Planning-III, BWDB			
12	Mr. HOSSAIN	Research Officer, Directorate of			
	Mohammad Akbar	Planning-1, BWDB			

Welcome to Japan! Program Orientation

5 October 2015

JICA Tokyo International Center Tokyo, Japan

The Country-Focused Training of JICA (NO. J1522125)

CONTENTS

- 1. Training Staff
- 2. Training Participants
- 3. Training Program (Syllabus)
- 4. Training Schedule
- 5. Other Information

1. Introduction of Course Staff

•JICA Training Officer: Ms. Eiko SANADA
Economic Infrastructure Development and
Environment Division, Tokyo International Center,
Japan International Cooperation Agency

Phone: +81-3-3485-7650

*JICA Training Coordinator : Ms. Hiroko ARAKI

• Training Coordinator :

Mr. Naoki MATSUMURA, JICA Expert (DDM) (7 Oct – 9 Oct)

Mr. Kazumitsu MURAOKA, JICA Long Expert (BWDB)

Mr. Osamu NAKAZAWA, JICA Expert Team

Phone: +81-45-593-7637 Mobile phone: 090-4918-5246 E-mail: nakazawa@ideacon.co.jp

The Country-Focused Training of JICA (NO. J1522125)

2. Training Participants (1/2)

Name	Organization	Position
Ms. Hamida Chowdhury	Ministry of Water Resources	Deputy Secretary
Mr. Muhammad Hiruzzaman	Ministry of Water Resources	Deputy Secretary
Mr. Khondaker Khalequzzaman	BWDB	Chief Monitoring
Mr. A. K. Manzur Hasan	BWDB	Superintending Engineer, Surface Water Hydrology Circle
Mr. Kazi Tofail Hossain	BWDB	Superintending Engineer Design Circle-2
Mr. Fazlur Rashid	BWDB	Superintending Engineer/Director Planning Directorate-1
Mr. Harun Ur Rasheed	BWDB	Superintending Engineer Design Circle-1

d

2. Training Participants (2/2)

Name	Organization	Position
Mr. Mohammad Enayet Ullah	BWDB	Executive Engineer Planning Directorate-1
Mr. Faizur Rob Chowdhury	BWDB	Sub-Divisional Engineer/Executive Engineer, Moulvibazar O&M Division
Mr. Md. Fahad Hasan	BWDB	Assistant Engineer Director Processing Section
Mr. M. L. Shaikat	BWDB	Assistant Engineer Chief Planning Office
Ms. Mosammat Shamsad Mahmuda Fatima	BWDB	Assistant Engineer Planning Directorate-1

5

The Country-Focused Training of JICA (NO. J1522125)

2. Training Participants

- Now please make a brief self introduction.
 - ➤ About 2-3 minutes per person.
 - ➤ Your name, your role in your organization and what do you want to see in Japan.

3. Training Program (1/2)

Course Objectives

 To learn the river management and disaster prevention through watching, hearing and experiencing the efforts in Japan, and to study reinforced manners to be applied to the river management and disaster prevention in consideration with the existing condition of Bangladesh.

Overall Goal

 Participants can conduct the river management and disaster prevention activities with reinforced manners employing the extensive knowledge, broad information and improved network acquired through the training in Japan.

The Country-Focused Training of JICA (NO. J1522125)

3. Training Program (2/2)

Preparation of Action Plan

- Action Plan shall be prepared for short, middle and long term.
- The plan shall address how to make the most use of lessons learned and training experience for river and disaster management services in Bangladesh, how to disseminate those knowledge and information, and how to consolidate coordination mechanism with concerned organizations in Bangladesh.
- Participants shall be grouped in 3 groups. Each group will make a presentation in the afternoon session on 16 Oct.

The Country-Focused Training of JICA (NO. J1522125)					
4. Training Schedule (1/2)					
	Date	Program	Area		
1.	5 Oct (Mon) ~ 11 Oct (Sun)	Guidance, Orientation, Lectures and Field Inspections	Tokyo and Kanto Region		
2.	12 Oct (Mon)	Move from Tokyo to Nagoya by super express train			
3.	13 Oct (Tue) ~ 14 Oct (Wed)	Lectures and Filed Inspections	Nagoya, Chubu Region		
4.	15 Oct (Thu)	Move from Nagoya to Tokyo by super express train	9		

The Country-Focused Training of JICA (NO. J1522125)					
4. Training Schedule (2/2)					
	Date	Program	Area		
5.	16 Oct (Fri)	Finalization and Presentation of Action Plan, Evaluation of Training Course and Closing Ceremony Preparation for Departure	Tokyo		
6.	17 Oct (Sat)	Departure from Japan ETD Tokyo (Narita) 10:30 By MH089 via KL ETA Dhaka 20:10 by MH112			
			10		

5. Other Information (1/2)

- Each day's departure time from TIC Confirmed final departure time will be announced one day before.
- Lunch for 7 Oct
 You are kindly requested to purchase your lunch for the day
 at a 24H store (LAWSON) near TIC before your bus will start
 from TIC. The bust will start at 8:00.
- General Information about Japan
 In order for participants know about general history and culture of Japan, Japan Fact Sheet (JFS) is provided as a part of Training Course materials.
 In addition to this, you will visit a very enjoyable "Edo-Tokyo Museum" in the afternoon on 10 Oct (Sat).

11

The Country-Focused Training of JICA (NO. J1522125)

5. Other Information (2/2)

- Shopping Hints
 - (1) Shinjyuku area

Electronics: Yodobashi Camera, Yamada Denki,

BIC Camera

Clothes: UNIQLO, BIQLO, H&M, ZARA

<u>Department & other stores</u>: Don Quijote, Keio Department Store, Odakyu Department Store,

Isetan Department Store, Takashimaya

Department Store (2) Akihabara area

Electronics: Onoden, Laox, Yodobashi, Eisan,

TOKIS

Others: Don Quijote

That's all! "Thank you for your kind attention"